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Department of Business Studies

Transferable Skills Enhancement Through Small Group Work: An analysis of the perceptions of accounting undergraduate students' in Irish Institutes of Technology to the development of transferable skills.

Gráinne Boland, July 2012

A Dissertation submitted in partial fulfilment of the requirements of Letterkenny Institute of Technology for the Degree of Master of Arts in Accounting.

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Abstract

Traditionally undergraduate accounting degree programmes focused on technical excellence in accounting skills. However professional accountancy bodies and employers increasingly expect graduates to possess a combination of technical skills and 'softer' transferable skills such as interpersonal skills, teamwork skills, and communication skills. One pedagogical technique recommended in the literature for enhancing transferable skills is small group work. This dissertation focuses on students' perceptions of the transferable skills most important for career success and explores the similarities and differences between students' attitudes and employer expectations. In addition, the effectiveness of small group work for developing transferable skills is examined. This dissertation met the research objectives through a review of relevant literature and the implementation of empirical research. The latter was achieved through a survey approach where questionnaires were administered to final year undergraduate accounting students in five Irish Institutes of Technology. The research produced a number of key findings: students were unaware of the importance of transferable skills until the latter stages of their degree; students' considered oral communication the most important transferable skill for career progression, followed by presentation, written communication, and teamwork skills; student and employer views were found to be largely convergent; and in terms of transferable skills development, students considered small group work an effective pedagogy for eliciting all 18 transferable skills covered in this study. Statistical tests indicate no difference in attitudes towards the development of transferable skills based on exposure to small group work, although the study did reveal that male students perceived leadership skills to be more developed than female students. The main conclusions drawn from this study are that Institutes of Technology should develop awareness campaigns and provide guidance to students on transferable skills development. Furthermore, academics should consider a balanced approach to assessment that enables all students to develop all transferable skills.

Key words: *transferable skills, small group work, accounting education, students' attitudes*

Dedication

I dedicate this dissertation to my wonderful and extremely patient husband, Joe, who from the very beginning understood my desire to return to education and pledged his commitment and support. I couldn't have done it without you and am forever grateful. Also to my son, Christopher, for all those days when I should have been there for you, all I hope is that one day you'll be inspired to follow your dream. Finally, I dedicate this work to my mother, Susan McCauley, who is such an inspiration and who always believed in me.

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List of Abbreviations

AAA	American Accounting Association
AECC	Accounting Education Change Commission
CIMA	Certified Institute of Management Accountants
HETAC	Higher Education and Training Awards Council
IFAC	International Federation of Accountants
QAA	Quality Assurance Agency (for Higher Education)
NFQ	National Framework of Qualifications
'Big 4'	Refers to the following accountancy firms: PricewaterhouseCoopers, Deloitte, Ernst and Young, and KPMG
'Big 8'	Refers to the following accountancy firms: Arthur Andersen, Arthur Young and Co., Coopers and Lybrand, Ernst and Whinney, Deloitte Haskins and Sells, Peat Marwick Mitchell, Price Waterhouse, and Touche Ross

Chapter One – Introduction

1.1 Background

The economic environment has become increasingly complex and dynamic in recent years as a result of the global recession. Consequently, the accountancy profession is being looked upon to provide extensive knowledge and expertise to facilitate economic recovery (Hancock *et al.,* 2009; Jones, 2010). While technical excellence is a key requirement, accountants must be equipped with a diverse range of skills to deal with the arduous complexities laid before them (Bui and Porter, 2010; Gammie *et al.,* 2010). Indeed, in the weakened labour market, only those possessing the required combination of technical and non-technical skills are being considered by employers (Kavanagh and Drennan, 2008). This view is highlighted by Stephen Isherwood, head of graduate recruitment at Ernst and Young, who recently commented that, "A good degree from a respected university no longer guarantees a job. We interview over 3,000 bright graduates every year, but only about 25% have the all-round skill set we recruit for" (Snowdon, 2012). From an Irish perspective, The *National Skills Strategy* states that "generic skills are regarded as of at least, if not more, importance for employers as technical or job-specific skills for the 21st century workplace" (Forfás, 2007:55). Graduates must possess a range of communication, interpersonal, and analytical skills, which enable them to operate effectively in the workplace, communicate with colleagues and management, engage clearly and confidently with clients and superiors, and meet tight deadlines (Albrecht and Sack, 2000; Kavanagh and Drennan, 2008; Hancock *et al.,* 2009).

1.2 Overall Research Aim

The overall aim of this research is to advance an understanding of the development of transferable skills in undergraduate accounting students through the use of small group work. To further this understanding it is felt necessary for this research to first identify the skills perceived as crucial to career success. The study will explore whether an

expectation gap exists between the skills employers identify as most important for career success and the perceptions of final year students embarking on a career as a professional accountant. It is also necessary to evaluate the nature of small group work and explore the benefits and limitations of this pedagogical technique. The research is facilitated by means of a detailed analysis of the relevant literature and through empirical data collection and analysis. The data collection techniques used by the researcher and the overall research strategy are further detailed in the chapter entitled Research Methods.

1.3 Individual Research Objectives

Recent international literature explores the attitudes of accounting students towards transferable skills (Hassall *et al.*, 2003; Stoner and Milner, 2006; Kavanagh and Drennan, 2008; Bui and Porter, 2010). However, while research has been undertaken involving Irish students within other disciplines, for example Engineering (HETAC, 2011a) and Modern Languages (Curry and Sherry, 2004), to the best of the researcher's knowledge no literature exists explicitly exploring the attitudes of Irish accounting students towards transferable skills. In order to address this deficiency the following research objective has been developed:

RO1: Identify the transferable skills that final year students of an undergraduate accounting degree programme perceive as most important for future career success.

Moreover, international accounting literature comparing the views of students and employers has reported a divergence of opinion as to the importance of key transferable skills for future career success (Kavanagh and Drennan, 2008; Jackling and de Lange, 2009; Bui and Porter, 2010). Although, research carried out by Curry and Sherry (2004) found the perceptions of Irish employers and modern language students to be fairly convergent. To facilitate the prioritisation of skills within accounting degree programmes, a comparative analysis of the views of students and employers will highlight any disparity. The proposed research aims to evaluate, through the extant literature, whether the views of Irish accounting students converge or diverge with the perceptions of employers. As a result, the following research objective has been developed:

RO2: Explore the similarities or differences between the attitudes of final year students of an undergraduate accounting degree programme and employer expectations in terms of the transferable skills that are important for a successful career in accounting.

The preceding research objectives set the context for this research study, providing a connection with the established theory (Bryman, 2008) on generic skills. Furthermore, they form the basis for comparison against international surveys and indeed national research involving other disciplines. Both objectives lead to the final research objective which addresses students' perceptions towards transferable skills development through small group work.

The importance of achieving a deeper learning experience is accentuated by Lord and Robertson (2006) who maintain that students should embrace active learning to become competent graduates and develop higher-level skills such as problem-solving and critical thinking capabilities. The accounting profession has called for innovative teaching methods, designed to foster this approach to deeper learning, to be introduced in accounting curricula to enhance the development of transferable skills alongside technical accounting knowledge (AECC, 1990; Albrecht and Sack, 2000; Kavanagh and Drennan, 2008). One teaching method accredited with achieving deeper learning and recommended in the literature for enhancing transferable skills is small group work (Humphreys *et al.*, 1997; Dyball *et al.*, 2007; Ballantine and McCourt Larres, 2009; Riebe *et al.*, 2010; McGuigan *et al.*, 2011). Indeed, existing research has evaluated the perceptions of accounting students towards the development of skills through the use of this pedagogical technique (Dyball *et al.*, 2007; Ballantine and McCourt Larres, 2007; McGuigan *et al.*, 2011). This current research aims to add to this body of literature by examining the perceptions of Irish undergraduate accounting students, who have engaged in small group work, to ascertain whether they perceive transferable skills to be enhanced. This led to the development of the following research objective:

RO3: Evaluate the extent to which final year students of an undergraduate accounting degree programme perceive that transferable skills have been developed through the use of small group work.

1.4 Value of this Research

This research is important for a number of reasons. Firstly, the study adds to the empirical work already carried out in two areas, namely, transferable skills and the development of attributes through small group work. The importance of research in this field was emphasised by Ballantine and McCourt Larres (2007:179) who stated that the development of generic skills "is an area of research that is growing in importance". This study attempts to address the paucity of literature pertaining to Irish undergraduate accounting students. Secondly, this study will contribute to the development of accounting curricula in higher education by providing a critical review of the academic literature pertinent to the enhancement of non-technical skills in accounting degree programmes. Obtaining empirical data allows meaningful comparisons to be made between theory and practice, enabling an improved understanding of the development of transferable skills in undergraduate students through the use of small group work. Thirdly, the study highlights the expectation gap between the perceptions of final year students in Irish academic institutions and graduate employers towards the transferable skills perceived as important for a successful career. It provides an awareness; to students of the skills they should further develop either through academic programmes or otherwise; to accounting lecturers and heads of department who may use the findings of this study to ensure the skills and competencies incorporated into accounting curricula are consistent with those perceived by employers as crucial for future career success; and to academic institutions as a whole.

Finally, as small group work has become increasingly pervasive in accounting education, the need arises to evaluate its usefulness (McGuigan *et al.*, 2011). This research provides empirical evidence that small group work successfully enhances students' transferable skills. The researcher believes the study will be beneficial to accounting academics both nationally and internationally.

1.5 Limitations

The above-mentioned research objectives have evolved considerably from the original research proposal for a number of reasons including, *inter alia*, institutional constraints, the researcher's own development and enhanced understanding of the literature and the

need for refinement. The initial proposal centred on a very narrow definition of cooperative learning, described by Johnson and Johnson (1975) as cited in Frey *et al*. (2009). However, as a result of institutional concerns, regarding a student evaluating the teaching methods of academic staff, the proposal was resubmitted with a broader focus. Firstly, the revised scope encompasses all forms of small group work removing any emphasis from particular academics currently using cooperative learning techniques. Secondly, the research was extended to include additional academic institutions which offers the possibility of generalisability and eliminates an emphasis on one particular institution. Accordingly, it would be impractical and unrealistic for the researcher to gain an understanding of the nature of group work undertaken by students within the various institutions. Moreover, an analysis of the extant literature pertaining to small group work identified a distinct lack of definition, with the terms 'group work' and 'cooperative learning' often used interchangeably (Ravenscroft *et al.,* 1999; Stainbank, 2009). Therefore, small group work for the purpose of this research refers to the broader sense as defined by Frey *et al.* (2009), "an instructional arrangement that allows two to six students the opportunity to work together on a shared task in order to jointly construct their knowledge and understanding of the content". Consequently, it was necessary to reframe the research objectives against the backdrop of this broader definition. As a result the research findings should be reviewed with a degree of caution as students have varying degrees of exposure to small group work, the nature and content of which is unknown.

The research would undoubtedly have been enhanced had either Irish employers or professional accountancy bodies been surveyed directly. Given the researcher's personal constraints it was not possible to conduct these surveys at this time.

1.6 Summary and Chapter Outline

This introductory chapter discusses the research focus, ascertains the overall research aim and individual objectives and details the researcher's justification for the study. The contribution the study makes to existing literature is highlighted and limitations of the research identified. In an attempt to address the research objectives the remainder of this paper is structured as follows. Chapter two extends a critical analysis of the literature pertaining to transferable skills, beginning with an evaluation of educational reform and

the rise of the skills agenda as it specifically relates to accounting education. Within this chapter a number of key terms are defined, while literature relating to the skills expectation gap is examined from the perspective of various stakeholders. An in-depth analysis of small group work is presented and the benefits and limitations of this educational approach posited. Chapter three outlines the research strategy adopted and the data collection techniques employed by the researcher in gathering primary data together with justification of each. Details of the sample size and population are discussed and a framework for analysing the quantitative data provided. Additionally, the validity, reliability and generalisability of the research are evaluated. The findings of the empirical research from five Irish Institutes of Technology are presented in chapter four. Subsequently the researcher discusses these findings, linking the results to the research objectives, with a comprehensive analysis provided in the penultimate chapter – Data Analysis. Finally, chapter six details the researchers overall conclusions on this thesis, recommendations are advanced, and areas with future research potential identified.

Chapter Two – Literature Review

2.1 Introduction to Literature Review

This literature review examines the primary issues surrounding the acquisition of transferable skills by undergraduate accounting students in tertiary education and the role of small group work in the enhancement of these non-technical skills. Initially the literature review sets the context for the study through an evaluation of educational reform and the rise to prominence of transferable skills for accounting students. The researcher highlights the significant ambiguity surrounding the definition of 'transferable skills' before exploring the perceived gap between employer expectations, accounting students, graduates and academicians.

The link between the acquisition and development of non-technical skills and the use of small group work is then established. In order to advance an understanding it is felt necessary to agree a definition of small group work apposite to this study. Further, a review of academic literature allows the benefits and limitations of this pedagogical approach to be advanced. Finally, the researcher evaluates the extant literature examining students' attitudes to the development of transferable skills through the use of small group work, to which this study will contribute.

2.2 Educational Reform and the Skills Agenda

Traditionally both accountancy bodies and academics considered a high degree of technical excellence the key to success for accounting graduates (IFAC, 1996; Gammie *et al.*, 2002; Gammie and Matson, 2007; Jackling and de Lange, 2009). Nonetheless, the changing nature of the accounting profession, largely as a result of the increasingly dynamic business and economic environment, has led professional bodies to seek graduates who are equipped with the necessary combination of technical and non-technical or transferable skills (Milner and Hill, 2007; Kavanagh and Drennan, 2008). The issue over where the responsibility to equip new accountants with the required

skillset lies has been widely debated, with various stakeholders maintaining academic institutions play a vital role through the education they provide to undergraduate students (AAA, 1986; Arthur Andersen *et al.*, 1989; AECC, 1992). Over the last few decades tertiary education providers have been heavily criticised for failing to adequately prepare their students (AAA, 1986; Albrecht and Sack, 2000; Milner and Hill, 2007).

The origins of this criticism can be traced back to the United States in the early eighties when the American Accounting Association (AAA) appointed a committee, now known as the Bedford Committee, to evaluate the state of accounting education and make recommendations for the future scope, content and structure of accounting curricula (AAA, 1986). While the report recommended that the foundation of an accountant's broad education should be provided by colleges and universities, the committee was critical of the stagnant nature of accounting degree programmes and expressed concerns that graduates not only had limited problem-solving capabilities but also lacked the ability to communicate effectively and reason logically (AAA, 1986). The views of the Bedford Committee were reinforced in a report issued by the then 'Big 8' accounting firms several years later (Arquero Montano *et al.*, 2001; Bui and Porter, 2010; Chaker and Abdullah, 2011). Their joint statement, referred to as the White Paper, presented a unified view of the skills required of an accountant and professed a necessity for practitioners and academics to cooperate in order to develop a relevant and stimulating accounting curriculum (Arthur Andersen *et al.*, 1989). Moreover, the White Paper explicated the range of skills required of graduates including, *inter alia*, communication skills, intellectual skills and interpersonal skills (Arthur Andersen *et al.*, 1989).

By the late eighties American accountancy firms recognised the urgency for educational reform and consequently the Accounting Education Change Commission (AECC) was formed in 1989 (Arquero Montano *et al.*, 2001; Gammie and Matson, 2007). The newly established Commission reiterated the recommendations of both the Bedford Committee and the 'Big 8' White Paper in their first Position Statement, which appended a comprehensive list of non-technical skills required to become a successful professional accountant (AECC, 1990). The Statement's detailed appendix also formed the basis for International Education Guideline No. 9 issued by the International Federation of Accountants (IFAC) in 1991 (Arquero Montano *et al.*, 2001). IFAC's Guideline acknowledges that while intellectual, interpersonal, and communication skills are

acquired by accountants through a combination of academic programmes and professional practice, the acquisition of such skills "enable the professional accountant to make successful use of the knowledge gained through education" (IFAC, 1996:6).

In their influential research paper, Albrecht and Sack (2000) were critical of the lack of response by academic institutions to previous calls for change. The report, which evaluated the views of employers and educators, concluded that accounting pedagogical techniques being employed by tertiary institutions needed substantial reform. Their study highlighted the skills that both stakeholder groups perceived as most important for students entering the accounting profession (Albrecht and Sack, 2000). Interestingly, the study revealed substantial agreement as to the key skill areas with both groups prioritising analytical/critical thinking skills, written communication skills and oral communication skills. Notably practitioners ranked teamwork as their fifth key skill just after information technology (Albrecht and Sack, 2000). Nonetheless, Hassall *et al.* (2003) emphasise that this seminal article failed to consider the views of one key stakeholder group, i.e. students. Although the need for curricula reform in line with employer expectation is widely accepted, Tatikonda and Savchenko (2010) allege that accounting degree programmes have seen insignificant change over the last 5o years as educators continue to focus on preparing students for professional examinations. The authors maintain that, as a consequence of this technical orientation, tertiary institutions are producing 'bean-counters' rather than team players with a variety of skills considered crucial for business success (Tatikonda and Savchenko, 2010).

While the impetus for accounting education reform originated in the United States the issues addressed in the aforementioned reports are equally applicable to the development of accounting curricula within Ireland. Indeed the Irish and British Governments have also emphasised the necessity for graduates to possess a broad array of transferable skills (Dearing, 1997; Forfás, 2007; QAA, 2007; HETAC, 2011b; Forfás, 2012a, Forfás, 2012b). Furthermore, the creation of the European Higher Education Area, as a result of the signing of the Bologna Declaration in 1999 by twenty nine European countries, provided a European platform for educational reform (NFQ, 2006). The Bologna Process specifically addresses the development of transversal skills in tertiary education (de Oliveira *et al.*, 2010), with the development of a series of general education statements referred to as 'the Dublin descriptors' (NFQ, 2006).

Nonetheless, significant confusion exists as regards defining transferable skills and the following section attempts to clarify the expression.

2.3 Defining Transferable Skills

The literature clearly expresses the need for accounting educators to undertake programme reviews to ensure undergraduate curricula incorporate the required balance of technical and non-technical skills (Kavanagh and Drennan, 2008) in order to prepare students for their future careers in an increasingly complex and rapidly changing profession. However difficulties arise as tertiary institutions attempt to identify what constitutes a 'transferable' skill. A review of the literature pertaining to softer non-technical skills unearthed a deluge of skills purported as transferable, a sample of which is provided in Appendix 1. Milner and Hill (2007), in their survey of Scottish accounting lecturers, found that considerable ambiguity exists over what exactly is referred to by the word 'skills', with disparate views emerging on both the scope of skills and the placement of skills in accounting programmes.

While transferable skills are central to the provision of higher education, the task of defining the term is complicated (Kavanagh and Drennan, 2008; Green *et al.*, 2009; Jackling and de Lange, 2009; Jones, 2010). Firstly, the term 'transferable' is used interchangeably with other expressions including generic, transversal, and employability. Secondly, 'skills' are frequently referred to in the literature as attributes, capabilities or competencies (Jones, 2010). The *National Skills Strategy* acknowledges the lack of clarity, providing alternatives to add to the taxonomy such as horizontal skills, basic skills, soft skills or key skills (Forfás, 2007). While no clear definition exists, Ballantine and McCourt Larres (2009:388) note that "transferable skills include a range of generic skills such as communication skills, written skills, interpersonal skills, critical, judgement and analytical skills". Additionally, skills such as teamwork, leadership, time-management, researching skills, ethics, conflict resolution and economic awareness are considered to be encompassed within the broad descriptor (Garvin *et al*., 1995; Greenan *et al*., 1997; Kennedy and Dull, 2008). Much of the literature implies that transferable skills are not subject specific (Ballantine and McCourt Larres, 2009), although the assumption that generic skills are transferable across disciplines is challenged by Jones (2010) who alleges that these skills are in fact

context driven. Jones (2010) argues that classroom based generic skills may not actually transfer to the workplace. In the same way, academic institutions may believe they are providing essential generic skills through accounting pedagogy while employers possibly have an entirely different view of what constitutes generic skills (Jones, 2010). Nevertheless the researcher asserts, given that accountancy firms including the 'Big 4' gladly accept graduates from various disciplines, that the requisite transferable skills are neither subject nor domain specific.

This inconsistency in defining generic skills has contributed to the widening expectation gap that has been extensively reported in the literature (Arquero Montano *et al.*, 2001; Jackling and de Lange, 2009; Kavanagh and Drennan, 2008; Wells *et al.*, 2009, Bui and Porter, 2010) and which is addressed further in the next section.

2.4 The Skills Expectation Gap

Albrecht and Sack (2000) emphasised the need for curriculum change and highlighted the expectation gap that exists between education and practice. The authors of *Accounting Education: Charting a Course Through a Perilous Future* are resolute in their view that the generic attributes of accounting students should be developed through undergraduate degree programmes, an opinion supported by Hancock *et al.* (2009). On the other hand, research carried out by Cranmer (2006) casts doubt on the ability of tertiary institutions to effectively develop students' generic skills in a classroom based environment, despite the best intentions of educators. Indeed research shows that educators are faced with many institutional and student constraints in their attempts to develop graduate attributes (Howieson, 2003; Green *et al.*, 2009; Bui and Porter, 2010; Stoner and Milner, 2010). Howieson (2003) explains that while many academics are committed to designing and implementing innovative accounting curricula to facilitate the development of generic skills, that many barriers to change exist. Constraints identified in the literature include a lack of financial and physical resources, limitations inherent in a three year programme cycle, the failure by academic institutions to recognise teaching quality in terms of promotion, and a lack of awareness by academics themselves of the rapidly changing business environment and consequently the skills essential in practice (Howieson, 2003; Green *et al.*, 2009). Bui and Porter (2010) reiterate this view and propose a further contributing factor is the sub-

standard performance of educators. In addition, the results of a study carried out by Stoner and Milner (2010) suggest that students' own inability to engage may inhibit the acquisition of certain employability skills. Some of the aforementioned constraints, *viz*. the failure of institutions to recognise teaching innovations and poorly performing lecturers, are disputable, particularly given the teaching-orientated as opposed to lecture/research-orientated approach of Irish Institutes of Technology.

2.4.1 Employer Perceptions.

Recent research investigates the graduate attributes most highly valued by employers. Jackling and de Lange (2009) for example, surveyed human resource managers in a number of Australian firms to establish the qualities sought in new accounting graduates. Overall their study revealed that in terms of desired qualities, employers ranked generic skills above technical skills, identifying team skills, leadership and verbal communication as the most highly sought attributes. Kavanagh and Drennan (2008) reported that although basic accounting skills are important to employers, there is an expectation that accounting students learn a multitude of skills including analytical and problem-solving skills, business awareness, oral and written communication skills, ethical awareness and the ability to work in a group environment. Notably, Bui and Porter (2010) found that the competencies most desired by employers varied between different sizes of accounting practice. Their study which assessed the views of a range of small to medium sized firms as well as the 'Big 4', found that medium-sized practices in particular expect graduates to become competent more quickly. Larger accountancy firms ranked oral and written communication skills highest while medium-sized firms placed more emphasis on interpersonal skills. All employers surveyed considered teamwork skills essential and expressed a view that students should actively engage in group work throughout their tertiary education. Similarly, a major study of 214 management accountants conducted by Hassall *et al.* (2003) indicated that the most important vocational skills for a qualified management accountant were oral and written communication skills, time-management skills, and the ability to work in teams. However, Gammie *et al.* (2002) postulate that employers are a single stakeholder group in the skills debate and one that will potentially never be fully satisfied. Nonetheless, Hancock *et al.* (2009) stress the importance of non-technical skills to employers with

their research suggesting these skills are frequently used as discriminators to distinguish students of similar academic standing when employers are recruiting graduates. Evidence of such practice can be found in the recruitment processes for prominent accountancy firms. For example, PricewaterhouseCoopers Employability Skills Campaign was launched in 2008 to help students demonstrate the core competencies assessed during their application process (PricewaterhouseCoopers, 2011).

2.4.2 Educator Perceptions.

Although research has highlighted the fact that the views expressed by employers are not necessarily in alignment with the views of higher education providers (Gammie *et al.*, 2002; Bui and Porter, 2010). Bui and Porter (2010) compared the findings of employer interviews to those of academics and identified distinct differences of opinion. All academics interviewed considered their primary role the development of students' intellectual knowledge, whereas none of the employers expressed this view. In contrast, employers felt graduates lacked communication skills, placing particular emphasis on graduates' ability to communicate effectively in 'business English'. In addition, the employers surveyed by Bui and Porter (2010) considered leadership and interpersonal skills key competencies for graduates while educators argued these skills are not typically required at entry level. Nevertheless, the findings of this research are supported by Jackling and de Lange (2009) who also maintain interpersonal and communication skills are held as key requirements by employers for new graduates.

2.4.3 Graduate Perceptions.

Researchers such as Bui and Porter (2010), Wells *et al.* (2009) and Jackling and de Lange (2009) have also addressed the generic skills debate from the perspective of recent graduates currently employed in practice. A large study of 174 graduates from one Australian university carried out by Jackling and de Lange (2009) reported that the expectations of employers, in terms of skills required of graduates, are not aligned with the skills graduates perceived were developed during their tertiary education. Notably, the study revealed no commonality in generic skills development between the two stakeholder groups, with graduates critical of the under-emphasis on skills development

in their accounting education. Conversely, Wells *et al.* (2009) in a smaller scale study which examined the views of 30 high-performing graduates employed in chartered accountancy practices throughout New Zealand purported that generic skills were in fact developed during university degree programmes. However, the positive results reported in this study may be biased and should be studied with caution, specifically because only high-performing graduates nominated by their employers were surveyed and it could be argued that the research subjects would develop generic skills more easily than lower-performing graduates. Moreover, Wells *et al.* (2009) suggest that New Zealand educators have heeded calls for educational reform although they identified two key areas for improvement, namely, effective teamwork and the application of theory to real-world situations.

2.4.4 Student Perceptions.

A number of studies have examined the perceptions of students towards skills development in accounting education (Lancaster and Strand, 2001; Hassall *et al.*, 2003; Milner and Stoner, 2006; Kavanagh and Drennan, 2008; Bui and Porter, 2010). Hassall *et al*. (2003) examined the views of 209 Chartered Institute of Management Accountant (CIMA) students in both the United Kingdom and Spain. The results of their research indicate that students prioritised time-management skills, teamwork and communication skills as essential skills for qualified management accountants. While the outcomes of their survey are unambiguous it should be noted that only 50% of respondents are degree students with the remainder advancing through professional education and all respondents have gained practical work experience. Consequently, the research findings may not be representative of students in tertiary education. A more recent study conducted by Kavanagh and Drennan (2008) of 322 final year accounting students across three Australian universities found that students also ranked communication skills and teamwork very highly, while continuous learning was perceived as the most important skill for future career success. Both studies compared the views of students to those of graduate employers and found that students and employers were largely in agreement as to the most essential transferable skills for future employment as a professional accountant (Hassall *et al.*, 2003; Kavanagh and Drennan, 2008).

2.5 Accounting Pedagogy to Develop Transferable Skills

Developing generic skills in accounting students can be achieved using a variety of pedagogical techniques including case studies, role-playing in decision situations, oral presentations, report writing and collaborative research projects (Arthur Andersen *et al.*, 1989). One particularly relevant technique purported in the literature for enhancing learning and developing generic skills is small group work (Humphreys *et al.*, 1997; Dyball *et al.*, 2007; Ballantine and McCourt Larres, 2009; Riebe *et al.*, 2010; McGuigan *et al.*, 2011). Teamwork is becoming increasingly popular in the workplace as individuals spend an increasing proportion of their time collaborating in small teams (Greenan *et al.,* 1997). Therefore, employers repeatedly seek graduates who can demonstrate collaborative group-working skills as well as team leadership skills (AECC, 1990; Gammie and Matson, 2007; Kennedy and Dull, 2008). Hancock *et al.* (2009) through their interviews with employers put small group work into context. The emphasis placed by employers reveals the importance of client relationships, leadership and the role of managerial skills in effective teams. Employees must recognise the importance of interacting with groups both within and outside the organisation. Accordingly, it is imperative that graduates experience the dynamics of small group work through tertiary education to comprehend the behavioural and managerial processes involved. Kennedy and Dull (2008) suggest there is a growing awareness amongst educationalists that ultimately graduates will need to work collaboratively and the necessary skills can be effectively developed through cooperative group learning techniques. Ravenscroft *et al.* (1999) juxtapose the various characterisations of the traditional teaching paradigm in their cooperative learning literature guide although, to provide an enhanced cognizance, the researcher will attempt to define the vague descriptor.

2.6 Defining Small Group Work

Small group work is a mechanism for students to undertake experiential learning whereby participation involves deep as opposed to surface learning (Berry, 1993; Bourner *et al.,* 2001). Frey *et al.* (2009) cite the seminal work of Johnson and Johnson (1975) *Learning Together and Alone* to define group learning. The previous introductory chapter explained that the authors describe the pedagogical technique as

"an instructional arrangement that allows two to six students the opportunity to work together on a shared task in order to jointly construct their knowledge and understanding of the content" (Frey *et al.,* 2009:14). As mentioned earlier the terms 'group work' and 'cooperative learning' are often used synonymously by educationalists (Ravenscroft, 1999), and by the researcher in this study. Tempone and Martin (1999) used phenomenographic analysis, a qualitative approach used to understand the various ways in which people experience a phenomenon (Saunders *et al*., 2007), to ascertain how students approach small group work. Their study stresses that a deeper learning approach is essential, as students who actively engage and embrace a cooperative learning environment are more likely to learn from their peers and develop transferable skills (McGuigan *et al*., 2011). A review of literature on small group work reveals the many benefits and limitations posited.

2.7 Benefits and Limitations of Small Group Work

Ravenscroft (1997) maintains academic achievement is higher using cooperative learning, while it also promotes social support, positive attitudes towards other students and higher self-esteem. Further benefits of cooperative group work can be summarised as follows; it facilitates the development of enhanced interpersonal and communication skills, fosters respect for diversity and enhances social inclusion particularly with respect to minority and educationally disadvantaged students, fosters critical thinking while developing an enhanced understanding of the topic, and allows academic staff to develop more complex assignments (Cottell and Millis, 1993; Sullivan, 1996; Miglietti, 2002; Dyball *et al.*, 2007; Ballantine and McCourt Larres, 2009; Stainbank, 2009). Leveson (1999) proclaims one of the main benefits of small group work is that discussion inherently motivates learning.

Early research carried out by Ravenscroft *et al.* (1995) and Ciccotello and D'Amico (1997) indicated that cooperative learning positively impacts student performance. Ravenscroft *et al.* (1995) reported "pronounced benefits" in their study of two groups taking an accounting principles module. The authors further commend the pedagogy suggesting that "the benefits of cooperative grading are not restricted to lower-achieving students at the cost of the higher-achievers" (Ravenscroft *et al.*, 1995:107). Ciccotello and D'Amico (1997) in their study of 74 managerial accounting students in an

American university used group problem-solving workshops to evaluate the impact of cooperative learning on student performance. The researchers conclude that the benefits appear to have translated into better exam performance (Ciccotello and D'Amico, 1997). Although the relatively small control group (n=30) means the results should be evaluated tentatively. More recent accounting education literature provides mixed results. One recent replication study by Hwang *et al.* (2008) confirmed their own expectation that small group work can be more effective than passive learning techniques, such as the traditional lecture, with students participating in cooperative group work outperforming their peers. In contrast, research carried out by Gabbin and Wood (2008) and Hosal-Ahman and Simga-Mugan (2010) both failed to establish any significant difference in performance when using traditional methods, *viz.* individual exams or lectures, and small group work. On the other hand, Gabbin and Wood (2008) note their findings do not suggest that the pedagogical approach is harmful to academic performance and benefits other than academic achievement can be realised. Ultimately, happy and content students are more likely to work effectively within a team environment and produce superior outcomes. Strand Norman *et al.* (2004:20) regard student satisfaction as an important factor in the overall effectiveness of cooperative learning and suggest that ignoring their views "could be potentially dangerous and short sighted".

Nevertheless, while small group work is widely regarded as a useful accounting pedagogy (Sullivan, 1996; Ravenscroft, 1997; Ballantine and McCourt Larres, 2007; McGuigan *et al.*, 2011) it is not without its limitations. Holt *et al.* (1997) argue that students' time is precious and that cooperative learning is an inefficient use of that scarce time. They also suggest group work reduces grade variance and limits students' ability to stand out from their peers. However, the latter criticism is refuted by Ravenscroft (1997) who alleges that it is the lack of individual accountability on the part of lecturers that is to blame rather than the ineffectiveness of cooperative learning techniques. Nonetheless, Gammie and Matson (2007) maintain that assessing group work can be problematic especially in an award year. Their research carried out on final year accounting students established that despite group members' efforts to allocate tasks equitably some students continued to take advantage of their harder working peers. In comparing students' results the researchers found evidence that grade inflation had occurred and that the peer evaluation process implemented to deter free-riding had

been ineffective (Gammie and Matson, 2007). However, they acknowledge that students were largely appreciative of the skills they had developed and were generally supportive of group work.

2.8 Transferable Skills Development through Group Work

Several research studies have been carried out, the purpose of which was to assess the attitudes of accounting undergraduates towards the enhancement of transferable skills through the use of small group work. An exploratory study conducted by Berry *et al.* (1993) found the development of project-based group work in a UK university highly successful in developing group working skills including, *inter alia*, teamwork, communication skills and the ability to 'give and take'. Dyball *et al.* (2007) investigated the attitudes of a large cohort of second-year management accounting students in a Sydney university towards small group work and perceived transferable skills enhancement using a questionnaire originally developed by Garvin *et al*. (1995) and adopted by a number of researchers in several disciplines. A comparative analysis undertaken by Dyball *et al.* (2007) between their findings and studies carried out in the UK and Brisbane, Australia revealed reasonable levels of improvement for the Sydney students in generic skills such as problem-solving, researching, data analysis and written communication, with the exception of one transferable skill, i.e. working with others in a group. Similarly, Ballantine and McCourt Larres (2007) explored UK accounting students' attitudes towards cooperative group learning. Their study, which focused on three elements, group dynamics, skills development and the effectiveness of reflective logs, revealed students' attitudes were positive towards group dynamics, performance and overall skills development although less enthusiastic towards the role of peer evaluation. In addition, their research indicated that while all students had positive outcomes, lower achieving students felt their academic performance had improved more (Ballantine and McCourt Larres, 2007).

A recent New Zealand study conducted by McGuigan *et al.* (2011) reports similar benefits, as perceived by students, specifically the enhancement of problem-solving and critical thinking skills. Notably, McGuigan *et al.* (2011) did not explicitly enquire of students their attitude towards the development of key communication skills such as written, oral and presentational skills which are perceived in the literature as the most

crucial skills for employers (Hassall *et al.*, 2003; Kavanagh and Drennan, 2008; Jackling and de Lange, 2009; Bui and Porter, 2010). In contrast, Ballantine and McCourt Larres (2009) overtly explored the development of communication and interpersonal skills in their study of final year students. Their research, which compared the attitudes of two cohorts of students in a UK university, exposed separately to cooperative learning and simple group work techniques, indicated that in both instances students perceived their interpersonal and communication skills were enhanced.

While some academics identified extensive lists of transferable skills, for example Kavanagh and Drennan (2008) who include 47 skills in their comprehensive study, both Dyball *et al.* (2007) and Ballantine and McCourt Larres (2007) chose to quantitatively analyse much fewer skills. It is arguable that both studies omitted key skills. Ballantine and McCourt Larres (2007) chose to ignore fundamental skills such as written communication, time-management and problem-solving skills, while Dyball *et al.* (2007) failed to include core skills, namely, listening, leadership and negotiation skills. Such wide divergence in these quantitative studies makes meaningful comparison more difficult.

2.9 Summary and Need for Empirical Research

An analysis of relevant literature reveals that the development of transferable skills in undergraduate students is becoming increasingly important. In a progressively challenging economic environment employers increasingly expect work-ready graduates equipped with the full complement of technical and non-technical skills (Ferguson, 2010). However, the challenge of enhancing generic skills begins with defining the term. This literature review explores the meaning of 'transferable skills' and through an analysis of numerous lists of skills, a selection of which are appended, the researcher chose a comprehensive range of attributes as a basis from which to conduct empirical research to address the first and third research objectives.

Forfás (2012b) recently indicated that generic skills should be embedded in higher education programmes to prepare graduates for the workplace. Although, this view is not necessarily that of educators who believe their main priority is developing accounting students' technical ability in preparation for professional examinations

(Truan and Hughes, 1999). An evaluation of the perceptions of academics, employers and students regarding the transferable skills required of entry-level graduates provides meaningful discussion which when coupled with the empirical data provided in Chapter 4 – Survey Findings: Description, Analysis and Synthesis – will facilitate a critical understanding of the skills expectation gap, which will in turn address the second research objective.

One critical issue for the development of transferable skills is the use of appropriate accounting pedagogy. The researcher provides a critical evaluation of small group work, a popular technique associated with the enhancement of generic skills. The benefits and limitations of this paradigm are highlighted and the attitudes of students towards its effectiveness in eliciting transferable skills reviewed.

The search for pertinent literature revealed a lack of Irish accounting specific research and therefore the need arises to add to the existing body of literature through this study. To arrive at a deeper understanding of transferable skills development and the effectiveness of small group work in eliciting such skills, empirical research will be implemented. The following chapter will detail the research methods used to capture the empirical data for this study. The research strategy and data collection techniques adopted are evaluated and justified and a variety of alternatives explored. Furthermore the sample population is identified.

Chapter Three – Research Methods

3.1 Introduction

The purpose of this chapter is to examine the research methods adopted for this study. Initially, the research philosophy underpinning the overall research strategy is articulated and substantiated and the researcher's positivist stance and subsequent quantitative approach debated. The research strategy, a survey-based approach, is presented and the rationale for choosing the strategy explained. The researcher's target population is identified and sampling technique outlined. The chapter also provides an overview and justification of the quantitative data collection methods used for this study, and the validity, reliability and generalisability of the research are discussed. Finally, a framework for data analysis is proposed.

3.2 Research Philosophy

According to Saunders *et al.* (2012) a researcher's own understanding, assumptions and view of the world will influence the philosophical position they adopt. The authors describe a variety of philosophical paradigms and illustrate these in the outer layer of their research 'onion' (Figure 1). These taxonomies are the most basic premise from which research methods are then developed. While the diagram reveals several philosophical styles set along the epistemological continuum, for the purpose of this study selecting a research philosophy is based on two primary alternatives, i.e. positivism and phenomenology or interpretivism.

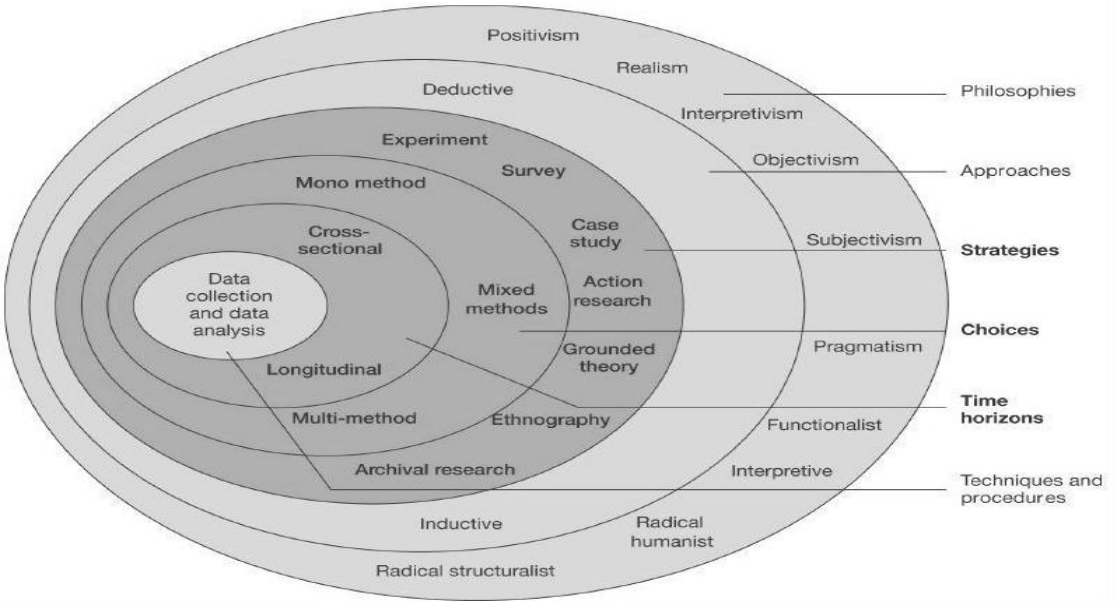

Figure 1. The Research 'Onion'

Source: Saunders, Lewis and Thornhill (2007)

3.2.1 Positivism and Interpretivism.

Positivism is rooted in a scientific approach to research when observing social behaviours (Brand, 2009). While the basic principle of positivism lies in its scientific perspective, Bryman (2008) cautions against using the terms positivism and science synonymously. The author notes that differences exist and further highlights the debate regarding the suitability of the natural scientist approach to societal research.

Positivist research tends to be based on a deductive theory with a focus on tangible, objective evidence that can be tested scientifically resulting in law-like generalisations (Saunders *et al*., 2012). Biggam (2011) argues that a positivist's view that the approach is objective and unaffected by humans is idealistic given that all research is affected by human influence and interpretation. While positivist research favours quantitative data collection methods and statistical analysis, Saunders *et al.* (2012) acknowledge that the approach may be acceptable for some qualitative methods such as in-depth interviews.

Interpretivism offers a contrasting view on the epistemological spectrum. This philosophy implies that interpretivists view the world from the perspective that "there are many, equally valid, interpretations of reality" (Biggam, 2011:137). Interpretivists hold that social interaction is necessary to gain an understanding of human behaviours

and furthermore, the interpretation of social interactions is contextual (Brand, 2009). Advocates of the interpretivist position believe social behaviours are multifaceted and that positivism is simply inadequate to ascertain the inherent complexities. Bryman (2008:16) describes the philosophical position as "predicated upon the view that a strategy is required that respects the differences between people and the objects of the natural sciences and therefore requires the social scientist to grasp the subjective meaning of social action". Bryman (2008) advises that this alternative philosophy is likely to prompt the researcher to adopt an inductive strategy. In essence, empirical data emerges from which patterns and relationships are identified which enable the interpretivist to build on established theory.

Many writers have advanced the central tenets of each philosophy (Bryman, 2008; Brand, 2009; Biggam, 2011; Saunders *et al*., 2012). Specifically, Saunders *et al.* (2012:140) propose a number of core characteristics relating to the alternative philosophical paradigms presented in Appendix 2.

3.2.2 Philosophy Adopted.

The adoption of an appropriate philosophy was driven, not only by the researchers own predisposition to a positivist strategy, but also by the descriptive cross-sectional nature of the study. This propensity towards positivism ensures the research objectives stated in the introductory chapter are addressed effectively, allowing students' attitudes to be measured objectively. Bryman (2008) highlights the debate on whether positivism is a suitable epistemology for social research. Indeed, alternative epistemological approaches were considered prior to final selection. Important considerations contributing to a positivist strategy are ethical limitations and meaningful comparisons to relevant literature.

The researcher was sensitive to ethical concerns raised in the early stages of the research process by the researcher's academic institution. The original research proposal involved an in-depth analysis and potential observation of co-operative group work based on a case study approach within the researcher's own institution. Inevitably, this strategy would have resulted in a more qualitative interpretivist approach. However, the researcher was unlikely to gain ethical approval and access to the required population

and therefore a more objective strategy was required. Cavanagh and Reynolds (2005:10) give emphasis to the ethical limitations of educational research, particularly in terms of "sampling procedures, access to appropriate subjects and sufficiently large samples, and samples that are randomly distributed". The authors note that ethical implications can influence the philosophical approach adopted by a researcher. Finally, an analysis of the relevant literature relating to the proposed research revealed a propensity towards positivism. To enable meaningful comparison to be drawn, an approach similar to that adopted by researchers such as Kavanagh and Drennan (2008), McGuigan *et al.* (2011), Ballantine and McCourt Larres (2007), and Curry *et al.* (2003c) is preferable.

3.3 Research Strategy

Saunders *et al.* (2012:173) define a research strategy as "a plan of how a researcher will go about answering her or his research question". Citing the work of Denzin and Lincoln (2005) the authors expand on this definition, implying that a research strategy provides the link between a researcher's philosophical viewpoint and their methods for gathering and analysing data. Nonetheless, Bryman (2006) contends that the suitability of a specific methodology for addressing research objectives is the crucial arbiter rather than the philosophical paradigm to which it is associated. The first objective of this study seeks to identify and rank the importance of transferable skills to students, while the third objective attempts to assess students' views towards the effectiveness of small group work. Essentially, the current research is concerned with measuring attitudes objectively at a given point in time. In order to determine the most appropriate strategy it is first necessary to consider alternative possibilities.

Historical research is not an appropriate strategy for this study. While the researcher's second objective requires a comparative analysis to empirical data from earlier studies not conducted by the researcher, this form of enquiry relates to secondary data analysis (Saunders *et al.*, 2012) and should not be confused with an historical strategy relating to non-contemporary phenomena. Action research is an attractive educational research strategy capable of eliciting students' views, a fundamental characteristic of the research objectives. Typically, action research is undertaken by lecturers seeking to address a specific problem within the context of their own classroom/institution. Nonetheless, Saunders *et al.* (2012) uphold that action research is a suitable strategy for students

undertaking research within their own organisation. However, the iterative process, whereby the researcher identifies a problem, critically examines that problem, and makes changes based on the results of the research process (Biggam, 2011), is a lengthy, time-consuming strategy that is impractical given constraints inherent in a taught Masters programme. Moreover, the objectives in this study do not attempt to solve a specific problem, rather they aim to elucidate and measure students' attitudes regarding various inter-related issues. Accordingly, an action research strategy is not suitable for this research. An alternative strategy, which also considers the context of the phenomenon being researched, is a case study strategy. According to Bryman (2008:52) the approach "entails the detailed and intensive analysis of a single case". The strategy has the potential to achieve a deeper, more meaningful understanding of both the phenomenon and context being studied. In considering the aforesaid research objectives, a case study approach would adequately address these objectives and facilitate the researcher's desire to gain an enhanced understanding of students' attitudes towards transferable skills and their development through small group work. Unfortunately, a case study approach was not considered ethically appropriate by the researcher's institution, insofar as a student would be investigating the pedagogical techniques of academic staff. Leo (2008) contends that institutional ethics, "though well-intentioned, inhibit the kind of critical investigation that case study research requires". As a result of institutional constraints, the researcher explored alternative strategies capable of providing the necessary data to fulfil the research objectives. To propitiate the need to become more objective in the exploration of attitudes and in keeping with the researchers positivist philosophical stance a quantitative approach to research design was assumed. The characteristics of both quantitative and qualitative research are deliberated before the proposed strategy is evaluated.

3.3.1 Quantitative versus Qualitative Research.

Bryman (2008) claims the delineation of quantitative and qualitative research methodologies is ambiguous and may actually obfuscate the role of each paradigm for researchers. The only ostensible difference proposed by the author being the use of measurement in quantitative research. Nevertheless, Bryman (2008:22) accepts the

differentiation between the methodologies provides clarity and presents three essential differences between quantitative and qualitative research, shown in Table 1:

Table 1. Fundamental differences between quantitative and qualitative research

	Quantitative	**Qualitative**
Principle orientation and role of theory	Deductive Testing of theory	Inductive Generation of theory
Epistemological orientation	Natural science/Positivism	Interpretivism
Ontological orientation	Objectivism	Constructionism

Source: Bryman (2008:22)

Qualitative research is popular in educational studies which typically involve human subjects and socially constructed data. Often associated with interpretivism, qualitative research normally involves an inductive approach where theory emerges through the research process (Saunders *et al*., 2012). Generally credited with developing a deeper understanding of social behaviours, qualitative research design also has limitations. One key criticism concerns the reliability and validity of qualitative data, while a high degree of subjectivity increases the likelihood of researcher bias. The processes involved in gathering, analysing and interpreting data can be particularly time-consuming (Hughes, 2012). Quantitative research offers an alternative to this subjective research methodology.

Typically, quantitative research is concomitant with the positivist philosophy and the measurement of quantifiable data (Saunders *et al.,* 2012). In an examination of the merits and limitations of a quantitative approach in educational research, Hara (1995) asserts its usefulness for establishing facts and trends. Hara (1995) concedes however that quantitative research is incapable of examining the psychological dimension of human research which may be better suited to a qualitative approach. The primary benefits of quantitative research include generalisability and ease of replication. Quantitative research encompasses a numerical and statistical approach, with empirical

data presented objectively, whereby relationships can be statistically analysed (Saunders *et al.*, 2012). Thus, quantitative research offers a suitable methodology for this study.

3.3.2 Research Strategy Adopted.

The strategies principally associated with the quantitative paradigm are scientific models, namely, experimental and survey strategies. Experimental research is not an appropriate strategy for this study. Biggam (2011) explains how implementing experimental research requires the phenomenon to be separated from its context. The objectives of this study specifically aim to contextualise the development of transferable skills, i.e. through small group work in tertiary education. Besides, the researcher is not attempting to predict relationships, rather to "inquire into relationships between variables" (Saunders *et al.*, 2012:176). Thus, the researcher will adopt a non-experimental, cross-sectional descriptive study.

The researcher is confident a survey strategy is the most suitable methodology. Bryman (2008:46) describes survey research as cross-sectional in design and involving the collection of quantifiable data, with two or more variables, relating to more than one case. In keeping with this description, survey research facilitates the researcher's goal of identifying the attitudes of a large cohort of final year accounting students towards a series of variables, i.e. transferable skills, and their development through small group work. With each transferable skill viewed as a single variable, the data can be examined through bivariate analysis with regard to gender, exposure to group work, and intention to follow a career as an accountant, to detect patterns of association. Survey research tends to be either exploratory or descriptive in nature, with descriptive studies regarded as the simplest form. Notwithstanding this simplicity, the appropriateness of a descriptive survey in addressing the aims of this research are highlighted by Coughlan *et al.* (2009:9) who describe its primary uses as "gathering data related to attitudes, behaviours and the incidence of events". Cross-sectional refers to conducting research at a point in time and is typically associated with descriptive survey research (Saunders *et al.*, 2012). Cohen *et al.* (2007) acknowledge weaknesses in a survey strategy including, limitations in its explanatory potential and attention to detail and the fact individual responses are discounted in favour of the collective. Similarly, Coughlan *et al.* (2009) allege that while the approach is uncomplicated, requiring a single instance of contact

with the research sample, the approach does not take into consideration changes in attitudes which may occur. On the other hand, Cohen *et al.* (2007) claim survey research has many attractive attributes including, *inter alia*, the ability to generate standardised data, information is factual and untainted by contextual factors, the process is ordinarily economical and efficient, and the attraction of numerical data capable of producing descriptive and inferential statistics that are then inferable to the wider population. Coughlan *et al.* (2009) conclude that time and resource constraints led to a rise in popularity of sample surveys. Indeed, the logistical reality of surveying all final year accounting undergraduates in Irish Institutes of Technology caused the researcher to select a sample population, details of which are provided in the next section.

3.3.3 Population and Sampling Approach.

A target population is defined by Hair *et al.* (2007:173) as "the complete group of objects or elements relevant to the research project". The information possessed by the population infers its relevance to a study. In this instance, the population refers to final year undergraduate accounting students undertaking their degree in an Irish Institute of Technology. The target population are considered to have exposure to small group work during their tertiary education and are required to draw from their experiences to complete the questionnaire.

The researcher chose a non-probability convenience sample on which to carry out the research, largely due to factors outside the researcher's control. Academic institutions could not be approached without first obtaining ethical approval. This approval was received towards the end of the semester leaving only a two-week window of opportunity in which to gather empirical data, after which the desired captive audience would not be accessible. Thus, it was important to approach institutions likely to be receptive to the research being administered on their students. Saunders *et al.* (2012) stress the importance of gaining the approval and cooperation from gatekeepers with the authority to consent to access to research subjects. Accordingly, the researcher sought the advice of academic staff who suggested counterparts in other institutions that were likely to be approachable. The recommended institutions were contacted and all five agreed without hesitation to facilitate the research. While the researcher remains confident that surveying students in five out of thirteen Institutes of Technology implies

a fairly representative sample, sampling bias, where "some members of the population have little or no chance of being selected for inclusion" (Bryman, 2008:168) will have occurred in this study.

3.3.4 Generalisability.

Ultimately, the appeal of survey research is the ability to infer to the wider population (Saunders *et al*., 2012). Many authors agree that a probability-based sample is essential in order to generalise findings (Cohen *et al.,* 2007; Saunders *et al.,* 2012; Bryman, 2008). The use of representative samples enables the researcher to develop hypotheses which are then tested. Unfortunately, the choice of convenience sample for this study restricts the ability to generalise the findings. Although, Connolly (2007) believes the criticism against hypothesis testing for non-random samples is harsh and stresses the process should not be discounted. The author asserts that non-random sample hypothesis testing can be useful and argues that even representative samples suffer from systematic bias, for example, in student surveys as a result of absenteeism or through non-response bias (Connolly, 2007). The researcher's intention is conduct simple hypothesis testing but to ensure the findings are interpreted prudently and readers advised to treat the results cautiously. Finally, as highlighted by Saunders *et al.* (2012) generalisability of a convenience sample is possible albeit not on a statistical basis.

3.4 Data Collection

The section entitled – Research Strategy Adopted – described the survey strategy espoused by the researcher and justified it as apropos to provide the data required to address the research objectives. The methodological approach can take several forms, *viz*. questionnaires in various guises including postal and web-based questionnaires, and interviews conducted either face-to-face or by telephone (Cohen *et al.,* 2007; Biggam, 2011). This section examines the benefits and limitations of several survey methodologies before assessing the suitableness of the researcher's chosen method to elicit students' attitudes.

3.4.1 Structured Interviews.

Structured interviews provide an attractive alternative for this descriptive study. The quantitative process involves an interviewer reading out a set of predetermined questions. Coughlan *et al.* (2009) suggest structured interviews have several advantages over questionnaires, for instance, generally higher response rates, the opportunity to explain unclear questions, and groups with literacy difficulties can be assisted. Conversely, Bryman (2008) highlights weaknesses in the technique such as effects of interviewer attributes, answering related questions in a consistent but irrelevant way, the problem of meaning where the interviewer and respondent may not share the same understanding of a question, and overfamiliarity leading to bias. Bryman (2008) accepts, however, that many of the limitations of the structured interview also relate to questionnaires.

Structured interviews are partially justifiable for this research although discounted for specific reasons. Firstly, interviews are characteristically time-consuming (Biggam, 2011) requiring explanations to each respondent prior to commencement and with a tendency to become extended as the parties enter into unrelated conversations. Secondly, there are often logistical problems particularly with large geographical areas and issues vis-à-vis scheduling appointments. Finally, structured interviews are not conducive to large samples and this study aims to assess attitudes of many undergraduates. The researcher was also limited by time constraints with reference to student availability and hence it would not be possible to interview the required number of respondents.

3.4.2 Self-Completion Questionnaires.

Wilson and McLean (1994) as cited in Cohen *et al.* (2007:317) define questionnaires as a "useful instrument for collecting survey information, providing structured, often numerical data, being able to be administered without the presence of the researcher, and often being comparatively straightforward to analyse". The data collection technique exists in various forms, the most prominent being postal questionnaires and web-based surveys (Bryman, 2008). In comparison to the structured interview, Bryman (2008) draws attention to the advantages of questionnaires, namely, their low cost and

potential to reach large audiences quickly, interviewer effects are eliminated, and the method is more convenient for respondents.

3.4.3 Web-based Questionnaire.

Email and web-based surveys offer an alternative to researchers hoping to reach a wide audience. Email questionnaires are either embedded within or attached it the email, whereas web-based surveys are hosted by a provider with respondents directed to the website through a hyperlink. One benefit associated with web-based surveys concerns the superfluities associated with instrument design (Bryman, 2008). Additionally, some providers support the importation of data directly into statistical software thereby reducing hours of onerous data inputting and the likelihood of process errors (Bryman, 2008). However, response rates are usually low (Saunders *et al.*, 2012) and only internet users have access to the instrument. To ensure a high response rate, postal questionnaires were considered more suitable for this study.

3.4.4 Data Collection Technique Adopted – Postal Questionnaire.

Postal questionnaires are the preferred data collection method for this study. Together with the merits posited in the section entitled – Self Completion Questionnaires – postal surveys have the added advantage of anonymity, a precondition agreed with each Institute of Technology. Nonetheless, postal questionnaires have their limitations. The technique uses predominantly closed questions based on Likert Scales which do not allow respondents to elaborate on their views and therefore do not allow rich qualitative data to be derived (Saunders *et al*., 2012). Furthermore, the researcher has no control over who completes the questionnaire; someone other than the intended respondent may do so (Bryman, 2008). Low response rates are also a possibility (Coughlan *et al.*, 2009).

Notwithstanding these limitations, the researcher chose postal questionnaires to collect empirical data because: a) the target population is geographically dispersed; b) interviewer bias is eliminated; c) the instrument could be administered to a captive audience guaranteeing a higher than normal response rate; and d) respondents anonymity is achieved.

3.4.5 Data Collection Process.

Data was compiled from questionnaires completed by 121 accounting students currently in their final year of an undergraduate degree programme in one of five Irish Institutes of Technology. In an attempt to gather the information required to address the research objectives, data was collected via a self-completion questionnaire, a method recognised by Cohen *et al.* (2007) as popular in educational research to ascertain attitudes.

To secure a high response rate and gain the cooperation of each institution, the researcher initially contacted the Head of School of Business in each institution, by email, shortly before the Easter break (Appendix 3). The email outlined the proposed research and sought assistance to administer the questionnaire. Alternatively, the researcher undertook to travel to each institution if necessary. Institutions received a follow-up telephone call when the semester recommenced providing an opportunity to build a rapport with each Head of Department and discuss the finer details of the research process. The researcher is confident this personal touch contributed to the quantity of responses received. In all but the researcher's own institution, each Head of Department personally administered the questionnaire during normal lecture hours within their respective establishments. In total, 202 questionnaires were requested of which 121 were returned within one week, giving a response rate of 60%.

The researcher is cognisant that the research instrument was administered close to the year end and the possibility arises that some students had ceased to attend lectures, preferring to revise for their imminent exams. This absenteeism introduces the possibility of bias in the dataset towards students with a proclivity to attend.

3.4.6 Research Instrument.

Donovan (2009) amplifies the importance of seeking out previously used instruments to conduct empirical research and reasons that legitimate surveys take months to construct. Having analysed existing literature and considered the attributes of various surveys, the researcher decided to adapt a questionnaire originally developed by Curry *et al.* (2003c) which sought to identify the attitudes of language students towards transferable skills. Several changes were made to ensure the instrument effectively addressed the research

objectives, particularly with reference to small group work which had not been a focus of the original questionnaire. The instrument is available in Appendix 4.

The eight page questionnaire was presented in booklet format to give the impression of brevity, thereby encouraging participants to fully complete the survey. A cover letter explains the purpose of the research, confirms that participation is voluntary and informs students of their right to withdraw. An assurance is given that data will be entirely anonymous. Divided into three sections, each section has a clear purpose linked to the research objectives being addressed through empirical data. The first section focuses on background information such as gender, age and intention to become a professional accountant. Participants' are asked to estimate their exposure to small group work throughout their tertiary education in order to determine whether transferable skills are developed based on this variable. The second section of the survey relates to the first research objective. Students' perceptions of the importance of transferable skills to their future career success are sought. Eighteen transferable skills are itemised and students are asked to identify on a five-point Likert scale the level of importance they place on each skill. Points on the scale range from 'very important' to 'not at all important'. Students are also asked to indicate when they first became aware of the importance of transferable skills. The final section of the survey specifically addresses the empirical data requirements of the third objective. Students' are requested to anchor their attitudes towards the development of transferable skills through the use of small group work using a similar five-point Likert scale. The scale refers to the efficacy of small group work and ranges from 'strongly agree' to 'strongly disagree'. This section also includes specific statements regarding transferable skills as well as factors concerning future employment on which students' attitudes are sought. The questionnaire takes approximately 10 minutes to complete.

3.4.7 Validity and Reliability.

Bryman (2008:151) refers to validity as "the issue of whether an indicator that is devised to gauge a concept really measures that concept". Although time constraints rendered a pilot study impracticable, content validity was addressed by the researcher in several ways. Firstly, the questionnaire was adapted from a previous study carried out by Curry *et al.* (2003c) in which the authors had both pre-tested and piloted the

instrument. Secondly, having made slight changes to the instrument the researcher pre-tested the revised survey "using a small sample of respondents with characteristics similar to the target population" (Hair *et al*., 2007:278). Based on the respondents' feedback the questionnaire was further refined. Finally, advice was sought from the researcher's supervisor and other academics.

Biggam (2011) asserts that validity relates also to the suitability of the research strategy, data collection techniques and method of data analysis. The researcher has adequately defended the use of each method throughout this chapter as apropos to this study, adding to the validity of the research.

Reliability is centred on the concept of consistency and the likelihood that the research instrument will produce consistent findings under different circumstances (Saunders *et al*., 2012). In addition, Biggam (2011) asserts that 'trust' is a central tenet of reliability and researchers must ensure all records are retained, methods employed are stated explicitly, and that no ambiguity exists regarding the researchers approach to data collection and analysis. The researcher addresses these issues throughout this paper.

3.5 Framework for Data Analysis

Once the data collection process was finalised, the questionnaires were assessed for correctness and completeness before the information was coded and keyed into a database in SPSS Version 19.0. The data was then rigorously checked for accuracy. The questionnaire consists predominantly of nominal and ordinal variables. Initially, descriptive statistics were carried out to provide a general picture of the empirical data. This information was summarised and displayed using percentages and frequency tables.

Data is further analysed on the basis of the research objectives. Mean scores for statements regarding students' attitudes towards the importance of transferable skills are identified, ranked and tabulated. Results are presented on an overall basis and by gender, and the percentage of all students that perceive individual skills to be either very important or important reported. An important aspect of this research involves comparing and contrasting the empirical results identified through the first research objective with the views of employers expounded in the Literature Review. The second

research objective is addressed through this analysis. After which, mean scores regarding students' attitudes towards the effectiveness of small group work in developing transferable skills are calculated, ranked and tabulated. To develop an enhanced understanding of the relationship between the importance and development of transferable skills, the findings of the first and third research objectives are contrasted.

Finally, based on the recommendation of Connolly (2007) empirical data was tested for statistical significance with regard to gender and exposure to group work. In order to conduct this analysis it was first necessary to recode the latter variable to establish two particular groupings. In doing so, students exposed to five or fewer group assignments were compared to students exposed to more than five. The Mann-Whitney U test, a non-parametric test, is used to test for differences between two independent groups and is appropriate when comparing a two category nominal variable with an ordinal variable (Connolly, 2007). The following null hypotheses were developed:

H_{01} there are no differences between the attitudes of male and female undergraduate accounting degree students in Irish Institutes of Technology towards the acquisition and development of transferable skills through the use of small group work.

H_{02} there are no differences between the attitudes of undergraduate accounting degree students in Irish Institutes of Technology towards the acquisition and development of transferable skills through the use of small group work based on level of exposure to small group work.

The results of the Mann-Whitney U tests of independence, Z values and significance levels, are tabulated and an analysis provided based on a probability value of $p<0.05$.

3.6 Summary

This chapter has described and justified the research philosophy and strategy adopted for this study and the operational detail is made explicit. A detailed framework for data analysis is also exemplified. The next chapter – Survey Findings: Description, Analysis and Synthesis – uses this framework to present and evaluate the results of the empirical data collected.

Chapter Four – Survey Findings: Description, Analysis and Synthesis

4.1 Introduction

This chapter presents and discusses the results from the survey described in Chapter 3 – Research Methods. The overall research aim was to explore students' attitudes towards the importance of transferable skills and their development through small group work. The research concentrates on the perceptions of final year undergraduates undertaking an honours degree in accounting in one of five Irish Institutes of Technology. The research findings are structured as follows: first, descriptive statistics are reported providing background information on the research sample; thereafter, the results are presented and analysed based on the research objectives. Mean scores regarding the importance of transferable skills and the effectiveness of small group work for developing those skills are ranked, tabulated and analysed in conjunction with the relevant literature. Finally, Mann-Whitney U tests of independence were employed to determine whether differences exist in students' attitudes towards skills enhancement based on gender and level of exposure to small group work.

4.2 Descriptive Statistics

Completed surveys, 121 in total, were received from five Institutes of Technology situated in the Republic of Ireland. This represents a response rate of 60% from 202 questionnaires posted to academic institutions. Notably, the number of responses, based on feedback received from the Heads of Department and from the researcher's own involvement, largely reflects those in attendance when the surveys were administered. Thus, the actual response rate is significantly higher. Bryman (2008) notes that response rates to postal questionnaires in excess of 60% are acceptable.

Demographic data is provided in Table 2. Of the 121 respondents, 56 students (46%) were male and the remaining 65 students (54%) were female. Approximately two thirds of the students (68%) are aged 25 years or less, while 39 students (32%) are 26 years or over. Of the students who disclosed their intention to take up a career as a professional

accountant, 49 males (88%) and 45 females (69%) stated their intention to do so. Seven students did not disclose their intention.

Table 2. Student demographics

	Male		Female		Total	
	Frequency	**%**	**Frequency**	**%**	**Frequency**	**%**
Age Category						
20 - 25	39	70	43	66	82	68
26 or over	17	30	22	34	39	32
Total	56	100	65	100	121	100
Career as Accountant						
Yes	49	88	45	69	94	78
No	5	9	15	23	20	17
Not stated	2	4	5	8	7	6
	56	100	65	100	121	100

Students were asked to indicate when they first became aware of the importance of transferable skills. This data is presented in Table 3 with results graphically illustrated in Figure 2. One student did not respond to this question, however of the remaining 120 respondents, 16 students (13%) were aware of the significance of transferable skills prior to commencing their degree, 18 students (15%) in their first year at college, 25 students (21%) in second year, 15 students (13%) in third year, 45 students (38%) in their final year, and 1 student (0.8%) because of the current survey. These findings indicate that the largest proportion of accounting students were unaware of the importance of transferable skills until the latter end of their degree programme. In contrast, Curry *et al.* (2003c) found that modern language students were aware of transferable skills much earlier in their tertiary education. Given than transferable skills are usually implicit in accounting degree programmes this lack of awareness is not surprising.

Table 3. Students' perception of when they became aware of the importance of transferable skills

	Frequency	%	Cumulative %
Because of this questionnaire	1	1	1
Final year in college	45	38	38
Third year in college	15	13	51
Second year in college	25	21	72
First year in college	18	15	87
Before your first year in college	16	13	100
Total*	120	100	

* One student did not respond

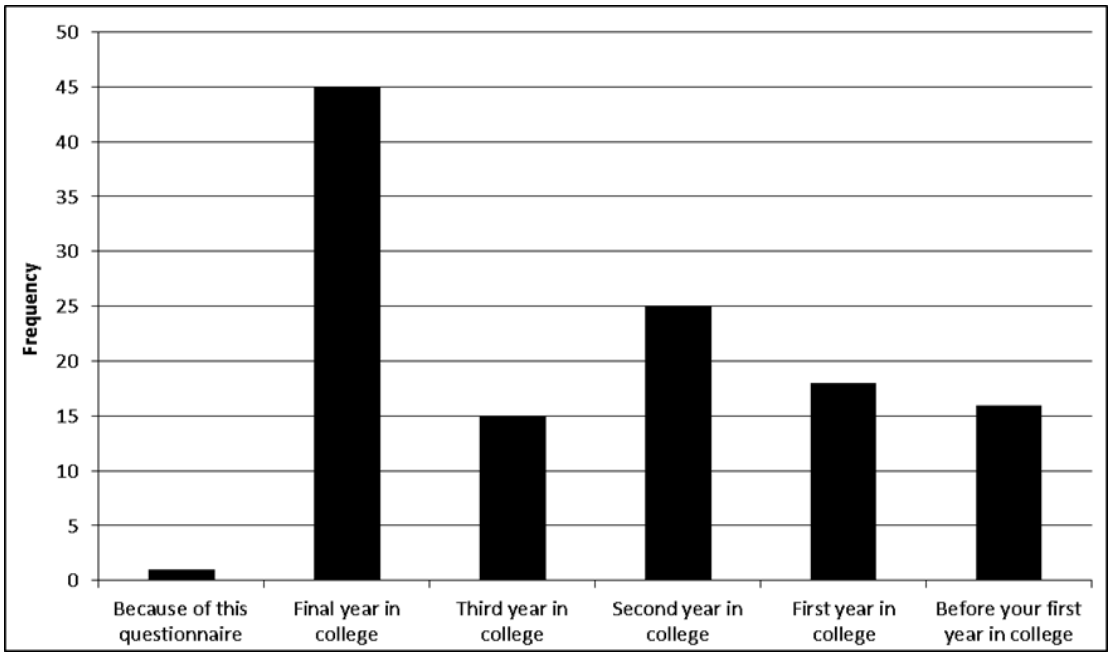

Figure 2. Student awareness of the importance of transferable skills

4.3 Important Factors when Seeking Employment

To gain an understanding of students' attitudes towards the importance of specific attributes when seeking employment after graduation, respondents were asked to rate several factors on a five-point Likert Scale with 5 = 'Very important' and 1 = 'Not at all important'. Table 4 sets out the overall mean responses for each factor ranging from 4.61 to 2.98, with results also classified according to gender. Personal qualities/personality and enthusiasm for the position were ranked as the most important factors by both male and female students, with 93% viewing these as either very important or important. Transferable skills are perceived as the third most important factor, ahead of both good academic record and specialist knowledge. The lowest ranking factors are unrelated work experience and personal interests. These results indicate final year students' acute awareness of the significance of transferable skills for future employment and highlight the need for empirical research to ascertain the importance of specific transferable skills and their development in tertiary education.

Table 4. Ranked mean scores for the importance of specific factors when seeking employment as indicated by students

	Male	Female	Total	% that perceived factor as very important/important
Personal qualities / personality	4.56	4.66	4.61	93.3
Enthusiasm for position	4.59	4.55	4.57	93.3
Transferable skills	4.29	4.33	4.31	92.4
Potential for advancement	4.29	4.25	4.27	86.6
Good academic record	4.20	4.23	4.22	84.2
Specialist subject knowledge	4.11	4.08	4.09	83.9
Relevant work experience	3.95	3.91	3.93	67.5
Personal interests	3.41	3.44	3.43	45.8
Unrelated work experience	2.96	3.00	2.98	28.6

4.4 Most Important Transferable Skills

The first research objective aims to elicit students' attitudes towards the transferable skills they perceive as most important for future career success. The questionnaire asked students to rate, on a Likert Scale ranging from 5 = 'Very important' to 1 = 'Not at all important', the importance of specific transferable skills for a successful career as a professional accountant. Mean scores were calculated and the results are presented in Table 5. Above average scores ranging from 4.76 to 3.86 indicate that respondents consider each of the 18 individual transferable skills to be important for a successful career in accountancy. Both male and female students placed the greatest emphasis on communication skills, *viz*. oral communication, presentation and written communication skills. Teamwork skills are also valued highly by students, although female students placed greater emphasis than male students on teamwork. To complete the top ten, students ranked the following transferable skills in the order they are stated; listening skills, time-management skills, problem-solving skills, decision-making skills, analytical skills and planning skills. Indeed, male and female students were in agreement as to the top 10 most important transferable skills. Students ranked project management skills, information management skills and research skills as least significant in terms of career success.

These results were not unexpected given that relevant accounting literature, as highlighted in Chapter 2 – Literature Review – previously reported the significance of these skills for accounting students. Kavanagh and Drennan (2008) explored students' attitudes in relation to a much more comprehensive list of 47 skills. Interestingly, their study found that students rated 'continuous learning' as most important for future career success. Other than continuous learning, which the current study did not include, the transferable skills perceived as important in their study are largely consistent with the findings of this research, with six of the top ten skills the same (Kavanagh and Drennan, 2008). Hassall *et al.* (2003) found students ranked time-management skills, group-working skills and oral and written communication skills as most important. Accounting students in this research did not place similar emphasis on time-management skills but did perceive them as important. In contrast, students in this current study rated presentational skills as their second most important transferable skill, whereas students in the study conducted by Hassall *et al.* (2003) rated the 'use of visual aids in presentations' as the least important for career success. Nonetheless, the rationale for

prioritising presentational skills is comprehensible considering graduate accountants must be capable of confidently presenting their work to their co-workers and superiors.

Table 5. Ranked mean scores for the importance of individual transferable skills to future career success as indicated by students

	Male	Female	Total	% that perceived transferable skills as very important/important
Oral communication skills	4.73	4.78	4.76	97.5
Presentation skills	4.54	4.63	4.59	96.7
Written communication skills	4.48	4.62	4.55	95.9
Teamwork skills	4.43	4.54	4.49	92.6
Listening skills	4.45	4.46	4.45	95.0
Time-management skills	4.41	4.46	4.44	94.2
Problem-solving skills	4.39	4.46	4.43	96.7
Decision-making skills	4.45	4.32	4.38	93.4
Analytical ability skills	4.32	4.31	4.31	86.8
Planning skills	4.18	4.23	4.21	80.2
Critical thinking skills	4.02	4.14	4.08	78.5
Conflict resolution skills	3.89	4.11	4.01	78.2
Leadership skills	4.05	3.97	4.01	77.7
Networking skills	4.00	4.00	4.00	75.8
Negotiation/persuasion skills	3.95	3.94	3.94	74.2
Research skills	3.96	3.91	3.93	66.9
Information management skills	3.91	3.91	3.91	72.7
Project management skills	3.87	3.84	3.86	66.7

4.5 Comparison between Student Perceptions and Employer Perceptions

The second research objective was designed to examine whether the attitudes of accounting students in Irish Institutes of Technology towards the transferable skills they perceive as most important for future career success are convergent or divergent with employer expectations. The researcher did not collect empirical data specifically relating to Irish graduate employers; rather, the data collected to address the first research objective will be compared to relevant accounting literature. Table 6 contains a summary of the transferable skills reported in the literature as most important for accounting graduates when seeking employment (Hassall *et al*., 2001; Jackling and de Lange, 2009; Kavanagh and Drennan, 2008; Curry *et al*., 2003d). While the terminology in each of these studies varies, the transferable skills implied are essentially the same. Notably, expectations reported by Curry *et al.* (2003d) relate to Irish employers across multiple disciplines, whereas the other international studies relate more specifically to employers of accounting graduates.

Interestingly, three of the top four transferable skills prioritised by Irish accounting students are consistent with all of the employer surveys, namely, oral communication, written communication and teamwork skills. Time-management and problem-solving skills valued highly by students are also considered important by employers in studies carried out by both Hassall *et al.* (2001) and Curry *et al.* (2003). A few key differences in attitudes between Irish accounting students' and employers exist including; students' prioritisation of listening skills which were only considered important by employers in the study conducted by Hassall *et al.* (2001); and the high priority given by students to presentation skills, with 96.7% of students considering these as important/very important for career success, however presentation skills were not prioritised by employers in any of the surveys reviewed (Hassall *et al*., 2001; Jackling and de Lange, 2009; Kavanagh and Drennan, 2008; Curry *et al*., 2003d).

To conclude, consistent with the findings of Hassall *et al.* (2003) and Kavanagh and Drennan (2008), this study finds that the attitudes of students towards the importance of individual transferable skills are generally convergent with the views of graduate employers.

Table 6. Transferable skills reported in the literature as the most important for future career success as indicated by employers

Jackling and de Lange (2009)

- Team skills
- Leadership/leadership potential
- Verbal communication
- Interpersonal skills (motivated, responsible/enthusiastic)
- Written Communication

Kavanagh and Drennan (2008)

- Analytical skills/problem-solving
- Business awareness/'real life' experience
- Basic accounting skills
- Ethics/fraud awareness/professionalism
- Communication: oral/face-to-face
- Communication: written
- Interdisciplinarity: able to work across/knowledge of other disciplines
- Teamwork/cooperation/participation
- Interpersonal/facilitation/ skills
- Continuous learning/keeping up to date/refresh basic skills

Curry *et al.* (2003d)

- Oral communication
- Teamwork
- Customer service
- Time-management
- Written communication
- Coping with multiple tasks
- Problem-solving
- Managing one's own learning
- Planning
- Decision making

Hassall *et al.* (2003)

- Present and defend points of view and outcomes of their own work, verbally, to colleagues, clients, and superiors
- Present and defend points of view and outcomes of their own work, in writing, to colleagues, clients, and superiors
- Select and assign priorities within coincident workloads
- Organise the workloads to recognise and meet tight, strict, and coinciding deadlines
- Listen effectively to gain information and to understand opposing points of view
- Work with others in teams
- Organise the workloads to meet conflicting demands and unexpected requirements
- Use relevant software
- Identify and solve unstructured problems
- Organise and delegate tasks

4.6 Effectiveness of Small Group Work for Developing Transferable Skills

The final research objective investigates the extent to which students believed transferable skills were developed using small group work during their tertiary education. To address this objective students were asked to rate their perception of how group assessment had enhanced the acquisition and development of transferable skills for them as individuals on a five-point Likert Scale ranging from 5 = 'Strongly agree' to 1 = 'Strongly disagree'. Table 7 presents the results on an overall basis and by gender. Without exception, students rated the effectiveness of small group work in enhancing each transferable skill as above average, with mean scores ranging from 4.44 to 3.60. These scores tend to suggest that Irish accounting students consider small group work an effective pedagogical technique for enhancing transferable skills, which they perceive as more important than technical accounting knowledge when seeking employment. Not surprisingly, students rated teamwork as the most enhanced transferable skill. This finding is encouraging considering the ubiquitous nature of teamwork in the modern workplace (Greenan *et al.*, 1997). Next in line in rank order are; research skills, presentation skills and oral communication skills, closely followed by listening skills, time-management skills, decision-making skills, planning skills and leadership skills.

In the main, male and female students were in agreement as to the skills perceived as most developed through small group work, the exception being leadership skills which male students ranked as their fifth most developed skill in comparison to female students where leadership skills were placed twelfth in terms of development. Surprisingly, written communication skills, a transferable skill valued highly by employers (Hassall *et al*., 2001; Jackling and de Lange, 2009; Kavanagh and Drennan, 2008; Curry *et al*., 2003d), was perceived by students as one of the least developed transferable skills. One possible explanation for this is that group work often results in one individual taking control of the assignment and organising the work of others to ensure fluidity, thus written communication skills may be less enhanced for other group members. Overall, students' perceived core skills highlighted as important by both students and employers, such as oral communication, teamwork and time-management skills, as being successfully enhanced through small group work. These findings provide empirical evidence to add to the existing body of accounting literature

commending the use of small group work (Ballantine and McCourt Larres, 2007; Ravenscroft, 1997; McGuigan *et al.*, 2011).

Table 7. Ranked mean scores for transferable skills acquired or developed through small group work as indicated by students

	Male	Female	Total	% that strongly agreed /agreed that transferable skills were developed through small group work
Teamwork skills	4.38	4.49	4.44	90.9
Research skills	4.25	4.26	4.26	89.3
Presentation skills	4.27	4.17	4.21	86.8
Oral communication skills	4.14	4.26	4.21	88.4
Listening skills	4.13	4.14	4.13	85.1
Time-management skills	4.05	4.00	4.02	77.7
Decision-making skills	4.05	3.98	4.02	78.5
Planning skills	3.96	4.05	4.01	83.5
Leadership skills	4.14	3.88	4.00	77.7
Problem-solving skills	3.88	3.97	3.93	81.7
Project management skills	4.02	3.82	3.91	72.7
Conflict resolution skills	3.77	3.94	3.86	70.8
Critical thinking skills	3.71	3.92	3.83	71.9
Negotiation/persuasion skills	3.71	3.88	3.80	66.1
Written communication skills	3.86	3.71	3.78	72.7
Analytical ability skills	3.75	3.66	3.70	63.6
Information management skills	3.71	3.55	3.63	57.9
Networking skills	3.71	3.51	3.60	55.4

4.7 Tests of Independence

Student responses in relation to the development of transferable skills through small group work were further examined to establish whether differences exist in students' attitudes with respect to a) exposure to small group work, and b) gender. Mann-Whitney U tests, recommended by Pallant (2007) for empirical data comprised mostly of nominal and ordinal variables, were used to statistically test the two independent samples for differences.

4.7.1 Exposure to Small Group Work.

Having recoded the variable pertaining to exposure to small group work into two categories a fairly even split emerged, with 57 students (47.5%) reporting exposure to between one and five group assignments and 63 students (52.5%) having completed six or more. The results of the Mann-Whitney U test of independence regarding differences in attitudes between the two groups are presented in Table 8. An analysis of the Z values and Mann-Whitney U significance levels reveals that no statistical differences exist between the two independent groups ($p<0.05$). As a result, it would appear that greater exposure to small group work does not further enhance the acquisition and development of individual transferable skills. From this, it would appear that some exposure to group work is adequate to elicit the skills required for future career success.

4.7.2 Gender.

A similar analysis of the Z values and Mann-Whitney U significance levels regarding the differences in attitudes between male and female accounting students was carried out, results of which are reported in Table 9. An analysis of these results reveals that differences were found between the attitudes of male and students, regarding the development of transferable skills through small group work, with respect to one transferable skill only, namely 'leadership skills' ($p<0.05$, Mann-Whitney U = 1400, Z = -2.381). This finding is not surprising given that in section 4.6 it was highlighted that male students considered that leadership skills were significantly more developed through small group work than female students. While the researcher remains cautious of inferring to the wider population, as a result of the non-random sampling approach adopted for this study, this statistical result allows the researcher to tentatively suggest

that it reflects an underlying trend in the entire population of final year undergraduate accounting students within Irish Institutes of Technology. The strength of the finding was calculated using the following formula:

$$r = \frac{Z}{\sqrt{n}}$$ where n = no. of students surveyed

$$r = \frac{2.381}{\sqrt{121}}$$

$$r = 0.2165$$

Connolly (2007) advises that values indicating effect size range from 0 to 1 for positive correlations and those values closer to 0 indicate weaker relationships. Accordingly, the strength of the relationship between gender and development of leadership skills through small group work was found to be fairly weak.

4.8 Summary

This chapter has presented and evaluated the survey research findings from 121 final year accounting students from Irish Institutes of Technology. Preliminary statistics were discussed and following an investigation into the importance of several factors, the significance of transferable skills to graduates seeking employment was established. Each of the research objectives were then addressed through an amalgamation of empirical and secondary data. Finally the results of tests of independence were discussed and analysed. The final chapter of this study – Conclusions and Recommendations – summarises the research findings and draws conclusions. Recommendations pertinent to this study are proposed and the limitations of the research outlined.

Table 8. Mann-Whitney U tests of difference in attitudes to small group work between male and female students

	Z	M-W sig. (*P*) (2-tailed)
Teamwork skills	-1.129	0.259
Research skills	-0.267	0.790
Presentation skills	-0.648	0.517
Oral communication skills	-1.130	0.259
Listening skills	-0.120	0.904
Time-management skills	-0.315	0.753
Decision-making skills	-0.121	0.904
Planning skills	-0.314	0.754
Leadership skills	-2.381	0.017
Problem-solving skills	-0.353	0.724
Project management skills	-1.168	0.243
Conflict resolution skills	-0.504	0.614
Critical thinking skills	-1.227	0.220
Negotiation/persuasion skills	-0.655	0.512
Written communication skills	-0.286	0.775
Analytical ability skills	-0.792	0.428
Information management skills	-1.176	0.239
Networking skills	-1.422	0.155

Table 9. Mann-Whitney U tests of difference in attitudes to small group work between students exposed to '1 – 5' and '6 or more' group assignments

	Z	M-W sig. (*P*)
Teamwork skills	-0.419	0.675
Research skills	-0.093	0.926
Presentation skills	-0.408	0.683
Oral communication skills	-1.135	0.256
Listening skills	-0.003	0.998
Time-management skills	-1.064	0.287
Decision-making skills	-1.073	0.283
Planning skills	-1.169	0.242
Leadership skills	-0.405	0.686
Problem-solving skills	-0.429	0.668
Project management skills	-0.031	0.975
Conflict resolution skills	-1.119	0.263
Critical thinking skills	-1.467	0.142
Negotiation/persuasion skills	-0.557	0.578
Written communication skills	-0.292	0.770
Analytical ability skills	-0.541	0.589
Information management skills	-0.778	0.437
Networking skills	-0.033	0.973

Chapter Five – Conclusion and Recommendations

5.1 Introduction

The preceding chapter – Survey Findings: Description, Analysis and Synthesis – presented and analysed the findings of this research study. This concluding chapter will outline a summary of the research findings, reflecting on each of the research objectives stated in section 1.3. Conclusions are drawn on the attitudes of students toward transferable skills, whether the views of students and employers are convergent or divergence, and the efficacy of small group work in enhancing the development of transferable skills for undergraduate accounting students in Irish Institutes of Technology. The remainder of the chapter focuses on limitations of the research process and the researchers own self-reflection. Finally, recommendations for future research are outlined.

5.2 Summary of Findings and Conclusions

The growing emphasis on the enhancement of transferable skills in accounting graduates has been catalysed by an increasingly competitive labour market. This elevated status for non-technical skills has been recognised by employers (Kavanagh and Drennan, 2008; Jackling and de Lange, 2009; Bui and Porter, 2010), professional accountancy firms (PricewaterhouseCoopers, 2011) and accountancy bodies (Gammie *et al.,* 2010), as well as academic researchers who have highlighted the necessity for research in this area (Ballantine and McCourt Larres, 2007). A review of the literature in chapter 2 accentuated the need to implement empirical research to ascertain the views specifically of Irish accounting students. Accordingly, the aim of this descriptive cross-sectional study was to develop an understanding of the importance of transferable skills for final year accounting students, while considering the value of small group work in enhancing the acquisition and development of these crucial skills.

A postal questionnaire administered to students found that final year accounting students were only aware of the importance of transferable skills at the latter stages of

their undergraduate degree. Nevertheless, transferable skills were considered to be more important than both academic record and technical skills by students. The following sub-sections attempt to answer the research objectives outlined in section 1.3 and provide a summary and interpretation of the key findings of this descriptive cross-sectional study.

5.2.1 Research Objective 1.

Identify the transferable skills that final year students of an undergraduate accounting degree programme perceive as most important for future career success.

The findings of this study, as acknowledged in section 4.4, reveal that final year undergraduate accounting students perceive oral communication to be the most important transferable skill for future employment and career progression. In addition, other communication skills such as presentation skills and written communication skills were prioritised by students, as were teamwork skills. The results of this research are consistent with similar studies investigating students' attitudes towards the importance of transferable skills (Hassall *et al.*, 2003; Kavanagh and Drennan, 2008), with two notable exceptions; students in this current study did not place similar emphasis on time-management skills; and unlike other comparative studies presentation skills were considered highly important by respondents. Although the researcher believes students' emphasis on the latter is warranted given that graduates must be confident and capable of presenting their work to others.

5.2.2 Research Objective 2.

Explore the similarities or differences between the attitudes of final year students of an undergraduate accounting degree programme and employer expectations in terms of the transferable skills that are important for a successful career in accounting.

In order to address this research objective, the views of accounting students elicited through the first objective were compared with employer expectations garnered from the literature. Table 6 summarised the key transferable skills required by employers of graduates (Jackling and de Lange, 2009; Kavanagh and Drennan, 2008; Curry *et al.*,

2003d; Hassall *et al.*, 2003). Empirical research carried out by Bui and Porter (2010), Jackling and de Lange (2009) and Kavanagh and Drennan (2008) reported that the perceptions of students and employers regarding the importance of transferable skills were divergent. In contrast, this investigation of Irish accounting students' perceptions and graduate employer expectations discovered a convergence of opinions. Transferable skills in alignment include oral communication, written communication and team work skills. Similarly, time-management skills and problem-solving skills were also valued by both students and employers. However one difference was discovered, in that students in this survey rated presentation skills as a key transferable skill, a view that was not expressed in the employer surveys reviewed.

5.2.3 Research Objective 3.

Evaluate the extent to which final year students of an undergraduate accounting degree programme perceive that transferable skills have been developed through the use of small group work.

This objective was addressed by exploring students' attitudes towards the effectiveness of small group work as a vehicle for enhancing the development of 18 transferable skills. Amid much criticism of accounting education, Albrecht and Sack (2000) called for effective pedagogical techniques capable of developing students' non-technical skills in preparation for a career in accountancy. While Cranmer (2006) has reservations regarding the ability of tertiary institutions to elicit the transferable skills desired by employers, this study found the attitudes of final year accounting students to be positive towards transferable skills enhancement through small group work. The findings indicated above average scores in relation to the development of each transferable skill. Unsurprisingly, teamwork was perceived as being most developed; a finding that is encouraging given that accountancy bodies and employers stress the importance of teamwork (Albrecht and Sack, 2000). Furthermore, skills such as oral communication and time-management skills, considered important by both students and employers, were perceived by students as being effectively developed. Although, written communication skills was viewed one of the least developed of the 18 skills examined.

The findings of this study have implications for educators considering the use of small group work in accounting degree programmes. Firstly, statistical tests of independence did not find an improvement in the development of transferable skills based on greater exposure to group work. While the study did not find excessive group work to be detrimental to students' learning, small group work is not without limitations some of which were described in section 2.7. Thus, the implementation of group assessment should be a carefully considered programme-wide decision and balanced with other forms of individual assessment. Secondly, the study found that male students perceived leadership skills to be more developed than female students. Educationalists should consider the composition of small groups in terms of gender balance to ensure students have equal opportunity to develop skills.

5.3 Recommendations

This research highlighted the fact that 51% of accounting students were unaware of the importance of transferable skills until either their third or final year of undergraduate education. Given the prominence placed on transferable skills by employers and indeed professional accountancy bodies recruiting graduates (Snowdon, 2012), where in the current economic climate transferable skills are frequently used to distinguish between students of similar academic standing, this is a situation that is simply unacceptable. The first recommendation to be offered is that academic institutions should develop an awareness campaign to emphasise the need for transferable skills development and provide explicit guidance to students on how transferable skills can be developed both within the classroom using appropriate pedagogical techniques and through extracurricular activities and work experience. Many professional accountancy bodies have online assessment tools, for example PricewaterhouseCoopers Employability Guide, which students can use to check transferable skills (PricewaterhouseCoopers, 2011), and this type of career guidance tool should be promoted by guidance councillors.

Both students and employers rank written communication skills as one of the most important skills for future career progression. However, accounting students involved in this study indicated that small group work is less effective for developing written communication skills than other transferable skills. Educators should avoid over

exposure to small group work as an assessment mechanism and provide a diverse array of assessment techniques to ensure that all transferable skills, perceived as important for future career success, are successfully developed for all students.

5.4 Limitations

During the research process a number of limitations emerged which the researcher prudently acknowledges may have impacted on the research findings. Firstly, the study was limited to the views of accounting students in only five Institutes of Technology. The convenience sampling approach adopted by the researcher may limit the generalisability of the research findings to the wider population. Secondly, the nature of this research, i.e. a cross-sectional descriptive study, did not allow for an in-depth analysis of the research topic. Future research may adopt a more qualitative approach using either face-to-face interviews or focus groups to advance a deeper understanding of the development of transferable skills. Given more time, the researcher would have considered the views of additional stakeholders, for example, employers, academics and professional accountancy bodies, to develop a more comprehensive study. Thirdly, this study considered the development of transferable skills through the use of a single accounting pedagogy. Students, in recalling their experiences of small group work, may have their views tainted by other influences that have impacted the development of transferable skills during their tertiary education. Finally, the researcher is cognisant that a definition of 'small group work' was not provided on the research instrument and therefore respondents may have differing opinions on what exactly constitutes small group work. With no guidance provided to students, the validity of the research may be impacted.

5.5 Further Areas of Research

This study presents a number of opportunities for further research. One possibility would be to include Irish universities in a study of the development of transferable skills. This would facilitate a comparative study to investigate the similarities or differences between the two types of academic institution. Another possibility would be to carry out a similar quantitative questionnaire on both employers and academics to

allow for direct comparisons regarding the importance of transferable skills for Irish accounting students against the backdrop of the current complex economic climate. Finally, this study considered the development of transferable skills through group work. An interesting alternative would be to consider the development of these skills through tertiary education in general.

5.6 Concluding Remarks

This research offers a valuable insight into the development of transferable skills in final year undergraduate accounting students in Irish Institutes of Technology. The researcher has effectively addressed the aim and objectives of this research and advanced recommendations as a result of the research conclusions. Limitations of the study were emphasised and discussed and the areas for further research identified. The researcher anticipates that this study will add to the body of existing literature pertaining to transferable skills development.

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Appendix 1

Sample of Transferable Skills reported in the Literature

Sample of Transferable Skills reported in the Literature

Hassall *et al.* (2003)

- Present and defend points of view and outcomes of their own work, *verbally*, to colleagues, clients, and superiors
- Present and defend points of view and outcomes of their own work, *in writing*, to colleagues, clients, and superiors
- Select and assign priorities within coincident workloads
- Organise the workloads to recognise and meet tight, strict, and coinciding deadlines
- Listen effectively to gain information and to understand opposing points of view
- Work with others in teams
- Organise the workloads to meet conflicting demands and unexpected requirements
- Use relevant software
- Identify and solve unstructured problems
- Organise and delegate tasks

Ballantine and McCourt Larres (2007)

- Verbal communication skills
- Building and maintaining trust with my colleagues
- Leadership skills
- Negotiating/persuasion skills
- Listening skills
- Tolerance of alternative points of view
- Questioning skills
- Conflict-resolution skills
- Ability to get along with other people
- Ability to debate issues critically

Curry *et al.* (2004)

- Oral communication
- Teamwork
- Customer service
- Time-management
- Written communication
- Coping with multiple tasks
- Problem-solving
- Managing one's own learning
- Planning
- Decision making

Albrecht and Sack (2000)

- Analytical/critical thinking
- Written communications
- Oral communications
- Computing technology
- Decision making
- Interpersonal skills
- Continuous learning
- Teamwork
- Business decision modelling
- Professional demeanour
- Leadership
- Risk analysis
- Measurement
- Project management
- Customer orientation
- Change management
- Negotiation Research
- Entrepreneurship
- Resource management
- Salesmanship
- Foreign language

Appendix 2

Key Characteristics of Positivism and Interpretivism

The positivist and interpretivist paradigms

		Positivist paradigm	Interpretivist paradigm
Ontology	Researcher's view of nature of reality	• World is external, objective and independent of social actors	• The world is socially constructed and subjective
Epistemology	Researcher's view of what constitutes acceptable knowledge	• Observable phenomena that provide credible facts • Focus on causality and law-like generalisations • Reduce phenomena to simplest elements	• Subjective meanings and social phenomena • Focus on details of situation and reality behind these details
Axiology	Researcher's view of the role of values in research	• Research is value-free • Researcher is independent and maintains objectivity	• Research is value-bound • Researcher is part of what is being observed and cannot be separated
Data Collection	Techniques most often used	• Highly structured • Use large samples • Measurement focus • Primarily quantitative but can use qualitative	• Small samples • In-depth investigations • Qualitative

Adapted from: Saunders *et al.* (2012:140)

Appendix 3

Email – Letter sent to Heads of Department

Subject: **Research Request**

Dear XXXXXXX,

I am currently undertaking a Master of Arts in Accounting at Letterkenny Institute of Technology. As part of my studies I am writing a thesis the title of which is 'Transferable Skills Enhancement Through Small Group Work: An analysis of the perceptions of accounting undergraduate students in Irish Institutes of Technology to the development of transferable skills'.

I am writing to you to seek permission to carry out my research on final year undergraduate accounting students currently studying in your institution. The proposed research instrument is a short questionnaire which I am hoping could be administered shortly after the Easter break.

Should this request be positive, I would appreciate it if you could put me in touch with an accounting lecturer who could administer the questionnaires on my behalf. Alternatively I could travel to your institution to distribute them myself.

Should you have any queries, please do not hesitate to contact me either my email or on my mobile.

Kind Regards,

Gráinne Boland
L00084722

Appendix 4

Student Questionnaire

Transferable Skills Enhancement Through Small Group Work: An analysis of the perceptions of accounting undergraduate students' in Irish Institutes of Technology to the development of transferable skills

Dear Participant,

I am inviting you to take part in the above research project. It is important that you understand what this study entails before you decide whether or not to participate.

Transferable skills include a range of generic skills such as communication, interpersonal, and critical thinking skills. These skills are highly valued by professional accountancy bodies and employers alike. One teaching method used to elicit these skills is small group work. This survey of Honours Degree (Level 8) Accounting students is designed to investigate students' perceptions of the transferable skills necessary for future career success and students' perceptions of the transferable skills acquired and developed through the use of small group work during their undergraduate degree programme.

You have been chosen as a participant as you are currently a final year undergraduate student on an accounting degree programme in an Irish Institute of Technology. Accounting undergraduate students in a number of Institutions have been asked to participate. The research involves the completion of a questionnaire and your participation is entirely voluntary. In completing the questionnaire you are consenting to participate in this research project. If you change your mind at any stage you can withdraw from the study without any explanation.

It is anticipated that the study will generate information that will add to the existing body of accounting literature regarding the effectiveness of small group work for enhancing transferable skills. All responses will be treated with the utmost confidentiality and will not be attributable to either individuals or to the relevant Institute of Technology. Furthermore, responses will only be used for the purpose of this research project. All data will be held securely in electronic format on a password protected computer. Responses received will be stored securely until six months after completion of the research project, at which stage all responses will be destroyed.

The survey should take approximately 10 – 15 minutes to complete. Most questions require 'tick box' responses. Please choose the answer which comes closest to your views or situation. None of the questions are mandatory; please feel free to skip any question you are unable to answer or which does not apply to you.

The researcher intends to report the findings of the research in her dissertation which may be available to others upon completion and also to submit research papers to educational journals. Should you have queries please email her at l00084722@student.lyit.ie.

Thank you for taking the time to complete the survey, your assistance is greatly appreciated.

Gráinne Boland
Masters of Arts (Accounting) Student
Letterkenny Institute of Technology

Section A

A.1 Demographics

Please read the statements below carefully and tick [✓] where appropriate

Gender		**Age Range**		**Do you intend to take up a career as a professional accountant after graduation?**	
Male	[ ]	20 – 25	[ ]	Yes	[ ]
Female	[ ]	26 or over	[ ]	No	[ ]

A.2 Exposure to Group Work

Please indicate the number of group assignments completed throughout your degree programme. Tick [✓] one category only

1 – 5	6 – 10	11 – 15	16 – 20	21 or more	None *
[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

*If you ticked 'None' please do not proceed with the remainder of the questionnaire

Section B

B.1 Below is a list of skills. Please rate each skill according to how important you think it will be to you for your future career success. *There are no right or wrong answers. Please answer as honestly as possible. Tick [✓] where appropriate*

Presentation Skills	[ ] Very important [ ] Important [ ] Somewhat important [ ] Not too important [ ] Not at all important

Written Communication Skills	[ ] Very important [ ] Important [ ] Somewhat important [ ] Not too important [ ] Not at all important

Oral Communication Skills	[ ] Very important [ ] Important [ ] Somewhat important [ ] Not too important [ ] Not at all important

Listening Skills	[ ] Very important [ ] Important [ ] Somewhat important [ ] Not too important [ ] Not at all important

Conflict Resolution Skills	[ ] Very important [ ] Important [ ] Somewhat important [ ] Not too important [ ] Not at all important

Time Management Skills	[ ] Very important [ ] Important [ ] Somewhat important [ ] Not too important [ ] Not at all important

Team Work Skills	[ ] Very important [ ] Important [ ] Somewhat important [ ] Not too important [ ] Not at all important

Leadership Skills	[ ] Very important [ ] Important [ ] Somewhat important [ ] Not too important [ ] Not at all important

Negotiation / Persuasion Skills	[ ] Very important [ ] Important [ ] Somewhat important [ ] Not too important [ ] Not at all important

Networking Skills	[ ] Very important [ ] Important [ ] Somewhat important [ ] Not too important [ ] Not at all important

Problem-solving Skills	[ ] Very important [ ] Important [ ] Somewhat important [ ] Not too important [ ] Not at all important

Analytical Ability Skills	[ ] Very important [ ] Important [ ] Somewhat important [ ] Not too important [ ] Not at all important

Planning Skills	[ ] Very important [ ] Important [ ] Somewhat important [ ] Not too important [ ] Not at all important

Project Management Skills	[ ] Very important [ ] Important [ ] Somewhat important [ ] Not too important [ ] Not at all important

Decision Making Skills	[ ] Very important [ ] Important [ ] Somewhat important [ ] Not too important [ ] Not at all important

Information Management Skills	[ ] Very important [ ] Important [ ] Somewhat important [ ] Not too important [ ] Not at all important

Critical Thinking Skills	[ ] Very important [ ] Important [ ] Somewhat important [ ] Not too important [ ] Not at all important

Research Skills	[ ] Very important [ ] Important [ ] Somewhat important [ ] Not too important [ ] Not at all important

Other Skills **(Please Specify…)**	

B.2 In relation to what you may do after college, when did you FIRST consider the importance of the types of skills in the previous question?

[ ] Before your first year in college
[ ] First year in college
[ ] Second year in college
[ ] Third year in college
[ ] Final year in college
[ ] Because of this questionnaire
Other (please specify) _____
_____
_____

Section C

C.1 Below is the same list of transferable skills used in question B.1. This time please give your attitude towards the acquisition and development of transferable skills through the use of small group work. *There is no right or wrong answer. Please answer as honestly as possible. Reflect your own attitude. Tick [✓] where appropriate*

Group assessment helped enhance the following skills for me as <u>an individual</u>;

Presentation Skills	[ ] Strongly agree [ ] Agree [ ] Undecided [ ] Disagree [ ] Strongly disagree

Written Communication Skills	[ ] Strongly agree [ ] Agree [ ] Undecided [ ] Disagree [ ] Strongly disagree

Oral Communication Skills	[ ] Strongly agree [ ] Agree [ ] Undecided [ ] Disagree [ ] Strongly disagree

Listening Skills	[ ] Strongly agree [ ] Agree [ ] Undecided [ ] Disagree [ ] Strongly disagree

Conflict Resolution Skills	[ ] Strongly agree [ ] Agree [ ] Undecided [ ] Disagree [ ] Strongly disagree

Time Management Skills	[ ] Strongly agree [ ] Agree [ ] Undecided [ ] Disagree [ ] Strongly disagree

Team Work Skills	[ ] Strongly agree [ ] Agree [ ] Undecided [ ] Disagree [ ] Strongly disagree

Leadership Skills	[ ] Strongly agree [ ] Agree [ ] Undecided [ ] Disagree [ ] Strongly disagree

Negotiation / Persuasion Skills	[ ] Strongly agree [ ] Agree [ ] Undecided [ ] Disagree [ ] Strongly disagree

Networking Skills	[ ] Strongly agree [ ] Agree [ ] Undecided [ ] Disagree [ ] Strongly disagree

Problem-solving Skills	[ ] Strongly agree [ ] Agree [ ] Undecided [ ] Disagree [ ] Strongly disagree

Analytical Ability Skills	[ ] Strongly agree [ ] Agree [ ] Undecided [ ] Disagree [ ] Strongly disagree

Planning Skills	[ ] Strongly agree [ ] Agree [ ] Undecided [ ] Disagree [ ] Strongly disagree

Project Management Skills	[ ] Strongly agree [ ] Agree [ ] Undecided [ ] Disagree [ ] Strongly disagree

Decision Making Skills	[ ] Strongly agree [ ] Agree [ ] Undecided [ ] Disagree [ ] Strongly disagree

Information Management Skills	[ ] Strongly agree [ ] Agree [ ] Undecided [ ] Disagree [ ] Strongly disagree

Critical Thinking Skills	[ ] Strongly agree [ ] Agree [ ] Undecided [ ] Disagree [ ] Strongly disagree

Research Skills	[ ] Strongly agree [ ] Agree [ ] Undecided [ ] Disagree [ ] Strongly disagree

Other Skills **(Please Specify…)**	

C.2 Please indicate the extent to which you agree / disagree with the following statements.
Tick [✓] where appropriate

In a work environment transferable skills are more important than specialist knowledge
[ ] Agree strongly [ ] Agree [ ] No opinion [ ] Disagree [ ] Disagree strongly

Transferable skills are better learned on-the-job than in college.
[ ] Agree strongly [ ] Agree [ ] No opinion [ ] Disagree [ ] Disagree strongly

A person's personality determines their ability to develop transferable skills
[ ] Agree strongly [ ] Agree [ ] No opinion [ ] Disagree [ ] Disagree strongly

C.3 Please rate the following factors according to how important you believe each would be if you were seeking employment after graduation: *Tick [✓] where appropriate*

Good academic record
[ ] Very important [ ] Important [ ] Somewhat important [ ] Not too important [ ] Not at all important

Specialist subject Knowledge
[ ] Very important [ ] Important [ ] Somewhat important [ ] Not too important [ ] Not at all important

Relevant work experience
[ ] Very important [ ] Important [ ] Somewhat important [ ] Not too important [ ] Not at all important

Unrelated work experience
[ ] Very important [ ] Important [ ] Somewhat important [ ] Not too important [ ] Not at all important

Personal qualities / personality
[ ] Very important [ ] Important [ ] Somewhat important [ ] Not too important [ ] Not at all important

Transferable skills
[ ] Very important [ ] Important [ ] Somewhat important [ ] Not too important [ ] Not at all important

Potential for advancement
[ ] Very important [ ] Important [ ] Somewhat important [ ] Not too important [ ] Not at all important

Enthusiasm for position
[ ] Very important [ ] Important [ ] Somewhat important [ ] Not too important [ ] Not at all important

Personal Interests
[ ] Very important [ ] Important [ ] Somewhat important [ ] Not too important [ ] Not at all important

Other (please specify)… Personal interests
[ ] Very important [ ] Important [ ] Somewhat important [ ] Not too important [ ] Not at all important

Thanks Again.